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FEBRUARY 1959

THE Airman

OFFICIAL JOURNAL OF THE AIR FORCE

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New Worlds
For Air Force Families

see

"BABES AND BOXES"

page 26

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THE AIRMAN is primarily a medium for the exchange of ideas and information among Air Force personnel. Readers are encouraged to submit articles, short subjects, photographs, and artwork. All contributions will be given consideration; suggestions and criticisms are welcomed. Opinions expressed by individual contributors do not necessarily reflect the official viewpoint of the Department of the Air Force. All photographs are official USAF photos unless otherwise designated.

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COVER: **Predawn AF Missile Test**—Patrick AFB, Fla., was painted by Tran Mawicke, Soc. of Illustrators, N. Y.

THE Airman

OFFICIAL JOURNAL OF THE AIR FORCE

VOLUME III, NUMBER 2 FEBRUARY 1959

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WRONG CUTLINE

Sir: *Sergeant Turner's article,* Airmen's Emancipation, *in the October issue of* THE AIRMAN *was excellent. However, on page 30, he identifies the equipment shown in the picture incorrectly. I think you will find that it is a panel for a Type 407 accounting machine.*

T/Sgt. H. F. Harmon
Kelly AFB, Tex.

Sir: *It is my understanding that computer programs are internally stored and therefore the information contained in the cutline for the picture on page 30 of the October issue is in error. Am I correct?*

A/2C Arthur DeWitt
L. G. Hanscom Field, Mass.

Sir: *Unless my eyesight fails me, the photograph on page 30 shows a control panel for the Type 407 accounting machine and is not used ". . . to program a computer to solve a complex problem."*

It might also be of interest to your readers to know that the second class of officers, referred to in the story, has now completed its training in Course OBR 6851.

M/Sgt. Thomas Hendrix
Sheppard AFB, Tex.

Our readers are quite correct in assuming that the control panel shown is that of a Type 407 accounting machine. According to the best information available to us, not all computer programs are internally stored. Some use wired programming and some a combination of wired and stored as well as those which use stored programs exclusively. The best description we have seen for this particular piece of equipment was contained in the letter received from Sergeant Hendrix, and identified it as "an integral piece of peripheral equipment used solely as a source of input/output for some systems."

★ ★ ★

COUNSELING AID

Sir: *Allow me to extend a word of praise to* THE AIRMAN *and its staff. Your publication has been a real help to me and my staff in counseling and assisting young airmen to plan their future with the USAF. Thank you for your help in enabling us to do a better job with accurate, easy-to-understand information.*

Capt. Bernard Christensen
McChord AFB, Wash.

★ ★ ★

DO-IT-YOURSELF

Sir: *I was pleasantly surprised to read the article,* A Pair Prepared, *in the October issue. (See, Airman's World.)*

The little aircraft constructed by Sergeant Cox is known as a "Baby Ace" and has become one of the more popular aircraft among the do-it-yourselfers. Each time I see a photo of one, it brings back the memory of pleasant toil and sweat when I designed and constructed the prototype and completed test flights in 1954. If any of your readers are interested in the homebuilt aircraft movement, they might like to contact our organization. Have them write to the undersigned at 9711 West Forest Park Drive, Hales Corners, Wis.

Paul H. Poberezny
Hales Corners, Wis.

Mr. Poberezny is president of the Experimental Aircraft Association, a nonprofit group, dedicated to the advancement of home-built aircraft and private aviation.

★ ★ ★

THE NAVIGATOR

Sir: *Having experience with Air Force publications, I am aware of the initiative, imagination, and creativeness necessary to publish a quality periodical. My congratulations to you and your staff for the increasing excellence of* THE AIRMAN. *Your ability in depicting and interpreting what is useful and interesting throughout USAF is of great importance to all personnel.*

You might be interested to know that The Navigator, *out of publication for more than a year, will return to circulation with the winter '58 edition.*

Lt. Col. Robert Schaaf
Randolph AFB, Tex.

For details on the return of *The Navigator,* see *Airman's World,* page 31.

ON MARS

Sir: *First let me say that I think* THE AIRMAN *is terrific, and I hope that you continue the fine work you have been doing to bring the Air Force-wide story to all members in blue. Your article in the September issue by Airman Cowan, titled* Visit to MARS, *is excellent. However, there is a mistake in this article I should like to correct. You refer to a detachment of my squadron and give the unit location. I wish to point out the spelling is incorrect. It should have been Makkovik.*

A/1C Carl Abrahamson
APO 677, New York, N. Y.

Many thanks for calling the misspelling to our attention. It certainly cushions the blow of having someone catch an error when they precede their minor criticism with such laudatory congratulations.

★ ★ ★

MORE ON MARS

Sir: *There are two reasons which have prompted me to write this letter. First, I want to take this opportunity to tell you how much I enjoy* THE AIRMAN. *It is a difficult job for a magazine of this type to always present articles that are both informative and entertaining. Your staff and contributors have certainly accomplished this.*

Secondly, I have a suggestion. I am sure that I speak not only for myself, but for other amateur radio operators, MARS members, and personnel of the Air Force communications field in general when I request more articles pertaining to the electronics and communications fields.

I realize that there are numerous periodicals available which specialize in such articles, but USAF activity in these fields is extensive and the number of people engaged in these areas is vast. I'm sure a wide segment of the Air Force would be most interested.

A/2C Bruce Cashman
APO 22, New York, N. Y.

Every effort is made to maintain balance in the selection of articles for THE AIRMAN—a sometimes difficult task in view of literally hundreds of skills throughout USAF. In case you may have missed them in the past, here are references to three articles we have carried dealing directly with electronics and communications. In the November '57 issue we carried a piece on the ground-to-air radio maintenance career field; in May '58, a story entitled *Communications Unlimited—the Magic of AACS;* and in September '58, *Visit to MARS.* In fairness to other fields, coverage must be spread over as many as possible.

The Air National Guard

by Lt. Col. Allan R. Scholin
National Guard Bureau

THE group commander leaned on the railing overlooking the hangar floor and gestured toward the men working below.

"It's up to them, sir," he said to the general beside him. "Any of our pilots can read the gauges, point the nose, and push the button. If the gear is working right, we hit. If it isn't, we miss. So it's really up to them."

The general was Maj. Gen. Winston P. Wilson, chief of the Air Force Division, National Guard Bureau. General Wilson had just brought word that the group had been chosen to represent the Air National Guard in an Air Force weapons meet.

Now the general was nodding in agreement. "It's up to all of you," he replied. "But you're right. The meet will be won or lost before you leave home." He paused, and grinned. "We think you can do it."

As it turned out, they could. "They" being the mechanics, the engine specialists, the radar technicians, the industry tech reps, even the 43010s who painstakingly cleaned and polished aluminum surfaces on the competing aircraft. Plus the controllers. And the pilots.*

They did it through a combination of skill born of trained experience, attention to every time-consuming detail and a proud determination to fulfill the confidence placed in them.

These qualities characterize most Guard units but they are by no means peculiar to the Air National Guard. They are demonstrated in abundant measure by the men of the Regular Air Force. An Air Guardsman's main objective is to measure up to the Air Force's high standards in carrying his share of the Air Force mission.

And it's a pretty substantial share, for the Air Guard makes an appreciable contribution to Air Force combat strength. While its 70,000 members represent less than 10 percent of Regular Air Force strength, the Guard adds 24 combat wings to the Air Force's 105, and 2,000 jet aircraft to the Air Force's 8,000 or so.

Of these 24 wings, 12 have a primary mission in air defense, eight are tactical fighter, and four are tactical reconnaissance. The first 12 are under operational supervision of ADC, the others under TAC.

Wings earmarked for TAC would virtually double TAC's present tactical fighter strength and would triple its reconnaissance force. Moreover, since the eight tactical fighter wings would be available initially to ADC for intercept missions in event of a surprise air attack upon the U. S., the Guard provides a large portion of the interceptors available to ADC for air defense of the U. S. In fact, right now 22 Air Guard squadrons maintain interceptor crews on full-time runway alert under ADC operational control, while four AC&W squadrons—two in the U. S., two in Hawaii—are on 24-hour alert status.

Guard combat aircraft are F-84s, F-86s, F-89s, F-94s, and F-100s, plus RF-84Fs and RB-57s. In addition to its combat units, the Guard includes an aeromedical transport group with five squadrons equipped with C-119s, earmarked for assignment to MATS; four troop carrier squaddrons employing SA-16s which would go to TAC, and, in Alaska, a light transport squadron, flying C-47s, which would be assigned to Alaskan Air Command on mobilization.

The four AC&W squadrons on full-time duty, plus one

* This reference is to the 125th Fighter Interceptor Group, Florida Air National Guard, based at Jacksonville, Fla., which placed first in the F-86D/L category in the Interceptor Phase of the 1958 USAF Weapons Meet at Tyndall AFB, Fla., 20-30 Oct. 1958. The team fired the first perfect score in meet history.

on part-time alert status in Puerto Rico, are part of a complex network of Air Guard communications groups with a total of 19 squadrons. AMC is the gaining command for seven communications maintenance and construction squadrons. Two AACS mobile operation squadrons are designated for assignment to MATS and one communications squadron is being planned for Maxwell AFB, Ala., to serve the Air University.

Slots Reserved

It is worth noting here that all these units, flying and nonflying, are ready to fill well-defined slots in major Air Force commands whenever they may be needed. For example, if you were to plot all regular ADC units on one map and all Air Guard air defense units on an overlay, it would be apparent that there is no duplication in coverage, but that one complements the other to provide maximum defense for the Nation. The same principle applies with units earmarked for other commands. With defense costs steadily rising, the Air Force simply cannot afford overlapping functions.

At Air Force headquarters, where budget considerations exert unrelenting pressure on all aspects of USAF programs, Air Guard capabilities are constantly being evaluated to see what functions can be transferred from the Regular Air Force to the Guard. A number of studies now under consideration would further expand Guard participation in Air Force missions.

This increased reliance upon the Guard has been underscored recently both by General Thomas D. White, USAF Chief of Staff, and General Curtis E. LeMay, his Vice Chief.

General White reported that the Air Guard represents more than "backup" strength for the Air Force—that it is a member of the Air Force's "first team"—and General LeMay declared: ". . . we of the Regular Air Force depend on Air National Guard and Air Reserve . . . combat units and individuals . . . to support accomplishment of the Air Force mission."

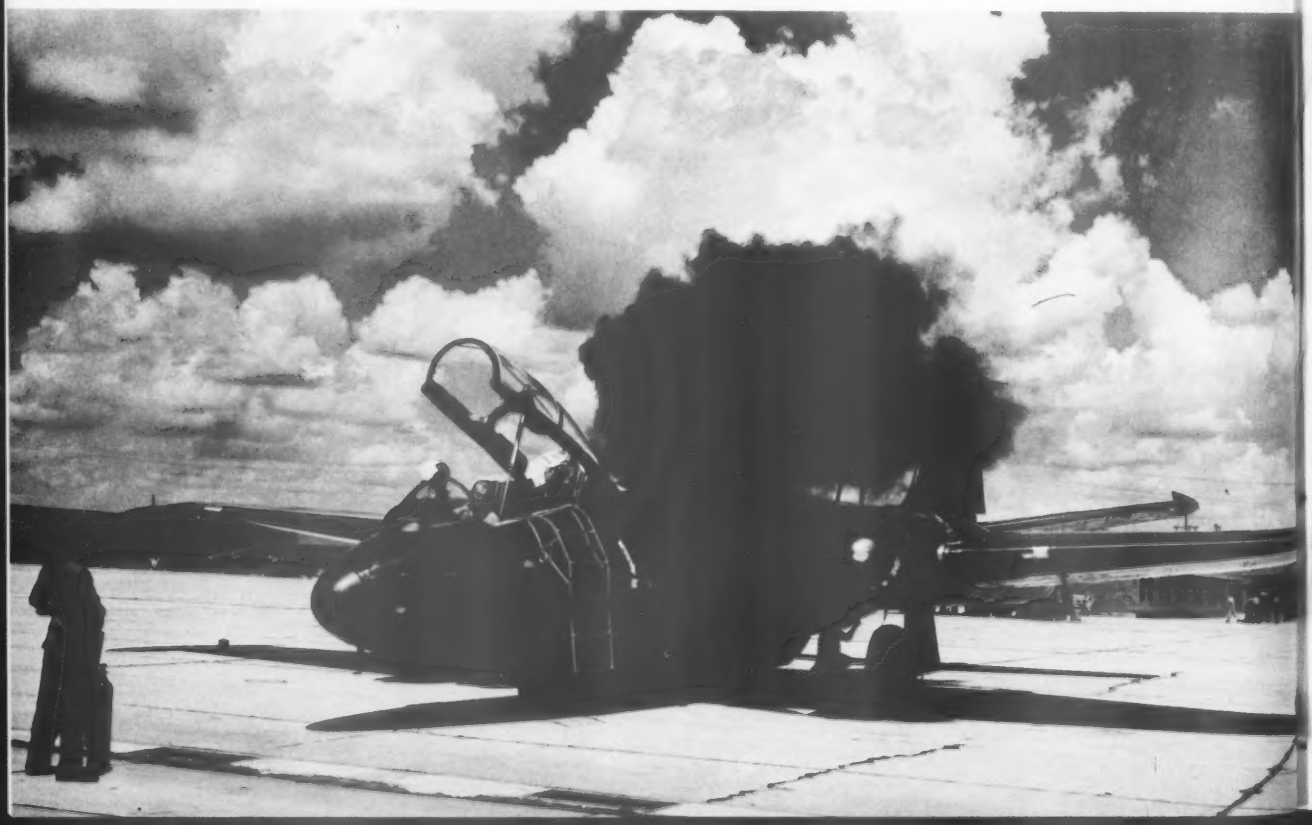
In an article last summer, AIR FORCE magazine summarized the Air Guard's current status in these words:

"The line that once divided functions of the Air Force and the Air National Guard is rapidly dissolving as Air Guard units become more and more an integral part of the nation's air strength. In fact, it is perhaps a misnomer today to refer to the Air National Guard as a 'Reserve' force, since many AFNG units now fly side-by-side with those of the Regular Air Force."

The Guard in Peace and War

The command relationship between Air National Guard units and their gaining commands is sometimes misunderstood because the National Guard is under state, rather than Federal, control in peacetime. In practice, however, this distinction is a legal one and imposes no limitation on operational supervision. Each state and territory is on record in stating that Air Guard units will instantly be released from state control upon request of the Air Force.

Smoke from the starter cartridge billows from an RB-57 of the Kentucky Air National Guard. Besides performing photo missions for the Air Force, TAC reconnaissance squadrons participate regularly in "Operation Eyeopener," making unannounced penetration runs to test our air defenses.



F-100s like these of the Tucson, Ariz., squadron are the most modern aircraft in the Air Guard inventory, but all combat squadrons are jet equipped. Other Century Series aircraft are programmed for assignment to Guard units this year.
Photo by Manley Studios, Tucson

Meanwhile, the Continental Air Command, whose mission includes supervision of Air Guard training, and the gaining commands which seek to assure that training and administration are comparable to their own procedures, are afforded full access to all echelons of the Air Guard.

But how in the world can a part-time organization like the Guard be depended upon to respond immediately in an emergency?

The answer to that lies in the unique composition of the Air National Guard. It is true that the large majority of its personnel hold down other jobs during the week. But each unit has a substantial nucleus of technicans, who are full-time employees of the unit, handling maintenance, supply, administrative, and command functions. Strictly speaking, these individuals—there are more than 13,000 altogether—are civilian employees of the state or territory, but they are also Guardsmen and normally wear the Air Force uniform on duty. Included in this full-time force are a number of operations specialists—pilots, observers, radar technicians, and others. In an emergency, they would be the first to swing into action.

Meanwhile, the call would go out to all other members of the unit wherever they work or live. Each Air Guardsman carries with him at all times a small list of individuals he's to call as soon as he himself is notified. Other means of communications are also used—radio, television, plant public address systems, slides on theater screens—to summon Guardsmen to duty. With these techniques, frequently tested, it is possible to get word to virtually all members of the unit in a matter of minutes. Meanwhile, city and state police are alerted to speed Guardsmen through traffic. By the time full-time pilots have flown the first sorties, other Guard pilots are in the air and the unit is in full-scale operation.

Skill levels of Air Guard noncoms compare favorably with those in regular Air Force units. These Texas Air Guardsmen are full-time technicians with the Guard's Jet Instrument School at Ellington AFB, Tex. Left to right are T/Sgt. Robert L. Thompson, S/Sgt. Jerry W. Bonner, and T/Sgt. Jesse N. Rice.

This is not very different from the time schedule of a Regular Air Force unit in responding to an emergency, as outlined by General Earle E. Partridge, NORAD commander:

"Our tactical units work something like the city firemen," he wrote in a recent article. "Part of the force is ready at an instant to rush to a blaze. The rest can be

called out on short notice if needed. To illustrate, currently at most interceptor bases we keep some aircraft on five-minute readiness, more on a one-hour status, and the rest ready to go within three hours."

Air Guard interceptor units would have no trouble meeting that timetable.

A Unique Heritage

The weapons are different, but the technique is the same as that which has characterized the National Guard since the earliest days of our Nation's history when the Guard was known as the militia. The Air National Guard became a separate element of the National Guard when the U. S. Air Force was established in September 1947, but there is rather substantial evidence that Guardsmen were flying aircraft even before the Army received its first airplane from the Wright Brothers in 1909. A group of New York Guardsmen in 1908 formed the First Aero Company, NYNG, and built and flew their own airplane. Just prior to World War I, the company was commanded by Col. (then Capt.) Raynal C. Bolling, for whom Bolling AFB in Washington, D. C., is named.

After World War I, observation squadrons were organized in the National Guard. Charles Lindbergh joined the 110th Observation Squadron in St. Louis and his squadron commander, Maj. William B. Robertson, headed the group of St. Louisans who financed his historic flight to Paris in 1927. Many top names in aviation, military and civilian, were members of Guard units in the pre-World War II period. In the Korean emergency, 22 Air Guard wings, with 45,000 members, were called to active duty. Of 38 jet aces in "Mig Alley" battles, four were Air Guardsmen.

Today the Air National Guard is at the highest level of unit and individual proficiency in its history, and its combat readiness compares favorably with that of the Regular Air Force.

Emphasis on Training

This is attributable to continuous emphasis on training. Training is the primary function of an Air Guard unit, occupying by far the major share of a Guardsman's effort. Many other activities which require attention on a Regular Air Force base either do not exist in an Air Guard unit or are performed on a considerably smaller scale. Since Guardsmen live at home, a guard installation needs no housing, and dining halls are operated only on drill weekends. Related facilities like theaters, gyms, hobby shops, commissaries, and base exchanges, so essential to life at an Air Force installation, don't exist on most Air Guard bases.

Training is very closely geared to Air Force standards. To begin with, an Air Guard recruit without prior service is sent to Lackland AFB, Tex., to undergo basic training alongside Regular Air Force recruits. After completing Phase I, he may go on to an Air Force tech school or remain at Lackland until he completes Phase II. At completion he returns to his home unit and immediately enters on-the-job training conducted in accordance with Air Force manuals. To earn promotion he must pass the same job knowledge tests given Regular airmen, and meet the same time-in-grade requirements.

These are the "Minute Men," the Air Guard's precision jet demonstration team. Like USAF's "Thunderbirds," they participate in air shows and other aviation events throughout the year. Last month the "Minute Men" visited the Caribbean Air Command, performing at Albrook AFB, Canal Zone, and at Managua, Nicaragua. The team flies F-86Fs. Left to right are Capt. Bob Cherry, left wing; Col. Walt Williams, leader; Lt. Bob Odle, right wing; Maj. Wynn Coomer, solo pilot; and Capt. Gobel James, slot. Colonel Williams, Major Coomer, and Captain James flew combat tours in Korea; Captain Cherry was an ace in World War II.

Happily, Air Guard units also gain experienced technicians from men leaving the Regular services. Of newcomers to the Guard, about half are new recruits while the other half have had prior service.

The majority of Air Guard officers are "alumni" of the Air Force, although a few have been commissioned from the ranks or through completing Air Force pilot training in Guard status. Initial appointment and promotion of Air Guard officers must be indorsed by the Air Force to make certain that they meet the same standards required for appointment or promotion of active-duty officers.

It is more difficult to get into an Air Guard unit today than at any time since before World War II. Most units are approaching full authorized strength and high reenlistment rates tend to keep them there. Some units have waiting lists, enabling them to take their pick of the best qualified and to weed out men who are unable, after a reasonable period, to measure up to job requirements.

As more and more Air Guard units reach this stage, the result is an organization of well-qualified personnel, with the morale and resourcefulness born of confidence in one another and their ability to master any tasks which the Air Force may assign them.

Guardsmen have fought in every war from colonial days to Korea. Mindful of this proud tradition, today's Air Guardsmen are determined to be ready whenever they may be needed and to measure up to the status assigned all Reserve Forces by General LeMay as "equal partners on the Air Force team."

EVOLUTION IN THE RESERVES

By virtue of a recent reorganization in the office of the Assistant Chief of Staff for Reserve Forces, the Air National Guard and the Air Force Reserve have identical representation in the air staff. There is now a direct linkage between the Assistant Chief of Staff for Reserve Forces and the Air Force Division of the National Guard Bureau.

The new plan, based on a charter approved by the Chief of Staff in mid-summer, became effective on November 10, 1958, and is intended to unite the Reserve Forces more closely with the active Air Force in the context of overall airpower capability. Through the establishment of this single agency responsible solely for Reserve affairs, the air staff is provided a focal point for guidance on and coordination of Reserve Forces matters.

Maj. Gen. Richard A. Grussendorf, Assistant Chief of Staff for Reserve Forces, USAF, commented on the reorganization for THE AIRMAN.

"The Reserve components of the Air Force can look forward to one of the most challenging periods in their history. The advent of new weapon systems, technological advances, and rapid revisions in concepts during recent years indicated the need for a comprehensive and soul-searching look at the Reserve forces—not with a view toward justifying their existence, since it has been recognized indisputably that they are necessary and desirable—but rather with a view toward directing and employing them most effectively as a ready augmentation for the ready establishment.

D-Day Forces

"The first step in preparing for the future was to envision the Air Reserve Forces as D-Day rather than M-Day forces. This required a restatement of responsibility so that there would be no question but that there was one office in the air staff which could pick up the loose ends to insure that the Reserve forces would be immediately ready and immediately available. The new organization is what I feel I need to carry out my responsibility in meeting the war plans of USAF."

The manning structure of the new organization provides for two deputies immediately responsible to the Assistant Chief of Staff for Reserve Forces, the one to be concerned with Air Force Reserve affairs, and the other with the Air National Guard.

The office of the Deputy for Air Force Reserve Affairs —which did not previously exist as a separate entity—provides guidance to the air staff agencies in the formulation of operational plans, programs, and policies for the Air Force Reserve to insure that they are in alignment with Air Force objectives and in consonance with the Reserve forces concept. Proposed legislation affecting Air Force Reserve; effectiveness of unit manning; implementation of the Air Reserve Technician Program; fiscal, material, and facility support programs; all fall within the purview of interest to Brig. Gen. Felix L. Vidal, Deputy for Air Force Reserve Affairs.

The Deputy for Air National Guard Affairs, Maj. Gen. Winston P. Wilson, has the rather unusual distinction of being equipped with three responsibility-hats instead of the customary one, or sometimes two. In his capacity as Chief of the Air Force Division, National Guard Bureau, General Wilson is also deputy to the Chief of the National Guard Bureau. Then with the concurrence of the Chief, NGB, and the approval of the Chief of Staff, USAF, he is designated Deputy for Air National Guard Affairs under the Assistant Chief of Staff, Reserve Forces.

A Management Device

This organizational innovation does not impinge on the existing responsibility for Reserve activities in the various agencies of the air staff, but it facilitates liaison and insures more precise and intensive coordination. Duplication of effort is avoided, and surveillance is made more effective by centralization.

One of the more promising features of the reorganization is the creation of a Projects and Analysis Group reporting directly to the Assistant Chief of Staff for Reserve Forces. This agency conducts a continuing analysis of Air Reserve Forces programs—embracing both the Guard and the Reserve—thereby providing a current and factual portrayal of mission capabilities within both Reserve components. This information will enable planning groups to effect a more realistic evaluation of performance and will provide a frame of reference in assigning additional roles and functions to the Air Force Reserve and Air National Guard either collectively or as units.

This evolutionary step aimed at more effective utilization of Reserve forces is in keeping with General Curtis E. LeMay's estimate of their value.

"No potential aggressor," said General LeMay, "can ignore the fact that our Air Reserve Forces contain truly ready combat units and trained individuals immediately available for augmentation of the active Air Force."

Westover Weight Watchers

Here's how heavyweights at one USAF base are winning "The Battle of the Bulge"

by Dave Karten

DID YOU ever get the feeling that you are being followed only it was you? Have the boys begun to crack wise about taking off your "parachute?" Is your nickname around the squadron "Heavy" or "Tiny?"

If your uniform measurements have inflated excessively since the days when you were private- or second looey-thin, then maybe it's time you considered joining a "Weight Watcher's Club."

A group of airmen at Westover AFB, Mass., have done just that with marked success. Their "club" has no membership fees, dues or officials. Their "constitution and bylaws" are the diet menus provided by officials of the Officer's Open Mess. The only requirement for membership: avoid avoirdupois through sensible diet.

The idea for the "Weight Watchers" was conceived by Maj. William O. Barnhart, Westover's Open Mess secretary, "to aid the Air Force physical conditioning program which got under way at the base a few months ago."

The flight surgeon cooperated by providing a list of nourishing-but-low-calorie foods. The kitchen steward, T/Sgt. Gene Fournier, lent a hand by preparing a balanced, nutritionally sound diet from the list with plenty of proteins, minerals, and vitamins for the officers who dined in the open mess. (Typical 605-calorie "Weight Watchers" menu: one slice of roast beef, sliced tomatoes, fruit gelatin, one slice of bread, hardboiled egg, small glass of milk, and a pat of butter.)

Oddly enough the club attracted slim-line airmen who wanted to stay slim as well as the heavier Air Force types who wanted to shed their "winter paunch."

Success of Westover's paring down program is evident in the more than three score low-calorie meals sold over the counter daily to "members" and Major Barnhart says this figure is increasing. The idea has already spread to the NCO Open Mess and Westover wives have taken up the challenge in a club of their own which they call "TOPS"—Take Off Pounds.

Reasons why weight watching is important are pretty obvious. As the flight surgeon says, this overweight problem is a serious matter which has considerable influence on longevity and efficiency not to mention expense. We all realize, of course, that the excess fat factor increases with certain sedentary jobs and "desk flying," but not well enough appreciated is the somewhat higher penalty exacted of you by overweight conditions.

So, skipping over the very real and very painful economy factor raised by outgrown uniforms and clothing, let's move into the basic problem of overweight vs. job efficiency.

The budding "Mister Five-by-Five" should realize that with each additional pound of fat he acquires a greater susceptibility to hardening of the arteries, pneumonia, diabetes, nephritis and arthritis. If you're a pilot or crew member, consider also the effect on the physical qualifications for flying. The medics take a dim view of bulgy pilots for a number of reasons.

For example, on explosive decompression, such as might be experienced during a higher altitude ejection, the freed bubbles of gas can push little particles of fat into the blood stream where they can be carried to the heart and brain and cause serious trouble.

Then there are the bends and the Doc says that tissues having the highest content of fat are most disposed toward bubble formation. In addition, G-forces, fatigue, anoxia, and most other difficulties beset the overweight man much more than the lean one.

On long range flights, plump airmen are subject to skin irritations aggravated by heat and perspiration and prone to prickly heat and wet chafing.

"The most important single factor responsible for the superior effectiveness of USAF combat crews," Col. Loyd E. Griffis, SAC Air Surgeon, points out, "has been the personal health and superior physical condition of our airmen. Americans as a group have for several generations been the best fed, best cared for and the healthiest individuals in the world.

"It is unfortunate that the bountiful living conditions which are largely responsible for this are not always equally effective in supporting the continued top flight physical conditions of adults.

"The biggest enemy of physical effectiveness in a member of the Air Force who is entering the upper 20s and 30s is excessive food, obesity, and lack of exercise. That obesity is one of the greatest destroyers of physical effectiveness is clearly demonstrated by insurance companies' statistics. Where individuals of normal weight from ages 20 to 29 have only 93 percent of the predicted death rate, individuals in the same age group who are 35 percent overweight have a death rate of 163 percent of the average rate. The overweight individual has to utilize large quantities of food just to maintain his needless extra weight. This places a strain on all the vital organs of the body.

"Overweight can be controlled by adequate diet so there is little excuse for tolerating this impairment of body function and physical effectiveness."

Besides, there are positive rewards for keeping your figure, for 98 percent of the people who are overweight and manage to lose weight feel much better, sleep better, and have more vigor and vitality.

The "Why" of Overweight

We hear people say: "It's glandular."—"It runs in the family."—"Just middle-age spread."—"It's natural for me to be fat." Are these valid causes for overweight? Let's see:

Glandular disturbances do occasionally contribute to overweight, but even in these rare instances, proper diet, under the flight surgeon's supervision, will melt pounds away.

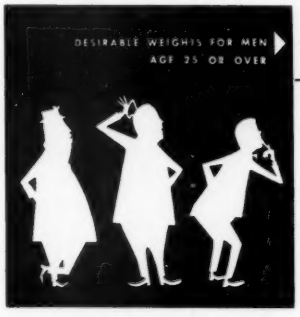
Heredity certainly does play a part, though just how important, is still not known. But it's important to remember that family eating customs also carry lots of weight. By changing their eating habits people from so-called overweight families can reduce.

Middle-age spread is not inevitable, and it certainly can be corrected! True, muscle tone tends to slacken as we get older, which makes it hard for some people to hold down that "youthful" waistline. But when birthdays begin to pile up pounds, it usually means one thing. A person's activity is slowing down while his eating habits fail to change. The body's energy requirements usually diminish around 40 or so—in keeping with a person's changing interests in life. For example, the airman who once went in for strenuous sports may now get more kick out of being a TV spectator sportsman. A person's temperament may have something to do with the fact that he has a weight problem—though this doesn't make overweight a "natural" state of affairs. Some of us eat too much when we're bored or restless—for want of something better to do. Others may, without realizing it, eat to relieve tense feelings. And for a few people, food seems to fill an "emotional gap"; becomes a makeshift substitute for something lacking in their lives; and helps to compensate for a sense of insecurity or a feeling of being unloved.

But many other people eat too many high-calorie foods for the simple reason that they don't know or haven't attempted to find out what foods make for better nutrition. And, despite life insurance statistics and gymnasiums on the base, many airmen confine their calisthenics to changing razor blades and walking to the mess hall.

So, if you're overweight, remember that you can reduce by following a plan that adds up to better health and better looks. You don't have to grit your teeth and count calories with a do-it-or-die determination that makes you wonder if it's really worth the effort. True, some Air Force personnel will find it harder to reduce than others. But there are sensible ways to take off weight without taking all the fun out of life.

WHAT'S YOUR BEST WEIGHT?



HEIGHT (with shoes on — 1-inch heels)		WEIGHT IN POUNDS ACCORDING TO FRAME (as Ordinarily Dressed)		
Feet	Inches	SMALL FRAME	MEDIUM FRAME	LARGE FRAME
5	2	116–125	124–133	131–142
5	3	119–128	127–136	133–144
5	4	122–132	130–140	137–149
5	5	126–136	134–144	141–153
5	6	129–139	137–147	145–157
5	7	133–143	141–151	149–162
5	8	136–147	145–156	153–166
5	9	140–151	149–160	157–170
5	10	144–155	153–164	161–175
5	11	148–159	157–168	165–180
6	0	152–164	161–173	169–185
6	1	157–169	166–178	174–190
6	2	163–175	171–184	179–196
6	3	168–180	176–189	184–202

How to Pare Down

1. Know your best weight. (See chart.)
2. See your flight surgeon. With his help try to discover why you eat what you do. He can also tell you what to eat.
3. Educate your appetite. Learn what foods are low in calories, high in nutritive value.
4. Eat a variety of foods. The more foods you know and learn to like, the easier it is to substitute low-for high-calorie ones.
5. Set yourself a goal.
6. Plan to be more active. Moderate exercise will help your body "burn up" superfluous fat.
7. Steer clear of reducing drugs and blitz diets. There are no shortcuts or miracle methods for taking off weight. If there were, we wouldn't hear so much about it.

Join a "Weight Watcher's Club"—if your flight surgeon thinks this method might help you. Or, if there is no such group at your base, be a do-it-yourselfer. Use an accurate scale and weigh yourself daily or weekly. A good breakfast, which provides protein foods, makes it easier to stick to your diet because you'll be less hungry at lunch time.

Remember the rewards of a slim figure or good physique.

Loans for Students

A Message for Air Force Parents

The National Defense Education Act of 1958, passed by the 85th Congress and signed by President Eisenhower on September 2, 1958, contains a number of features which merit the attention of thousands of Air Force parents.

Although the words "national defense" in the title may occasion some slight confusion, this law has no direct connection with the military establishment. It recognizes rather that the future welfare and security of the country is a matter of national concern at every level of society.

The intent of the legislation, to be administered at the Federal level by the U. S. Commissioner of Education, is to strengthen and enrich the educational system through a series of nine programs touching upon every level of the existing structure.

Of these nine programs, two are of immediate interest to the parents of teen-age children. Alert parents will see to it that Air Force children have an opportunity to share in the assistance offered by this effort to develop individual capabilities to the utmost.

Title II of the National Defense Education Act provides for the appropriation of substantial funds for loans to college students from fiscal year 1959 through 1962, with provisions included for additional loans beyond that date if necessary to complete the program of study.

While, as of this writing, the regulations governing administration of the program have not yet been published by the Office of the Commissioner of Education, sufficient information is available to acquaint parents with the general terms of the program. It is expected that funds will be available to grant loans for the second semester of the current school year.

Statistics show that only half of the top quarter of each year's high school graduating class enter college. Of those who enter only about half remain to graduate. There is little doubt that financial need is one of the biggest factors in the dropout. The merit of the program is evident.

Money is not loaned directly to students by the Federal government, and there is no provision for scholarship aid in this law. Federal funds appropriated are apportioned by states on the basis of college enrollment and allocated to the various colleges and universities where the money is deposited in a student loan fund.

Any boy or girl is eligible for a loan, up to $1,000 per year for five years, provided he or she can show a need for financial help, is capable of "maintaining good standing" in college work, and has been admitted by an institution of higher learning as a full-time student. Applications are made to the college of choice, and the institution *selects* those to whom loans will be granted.

The school is obliged to give "special consideration" to students with superior academic background who plan to become elementary or secondary school teachers, and students who have demonstrated a superior capacity for preparation in science, mathematics, engineering, or a modern foreign language. These two groups are favored since manpower shortages are most acute in the teaching profession and in the four fields of science. (Some colleges have private loan funds which may be available to students with other interests, and the Federal program will, undoubtedly, permit more widespread utilization of these.)

Loans made to a student under this law bear no interest during the period of study or for one year thereafter. Repayment begins one year after he stops being a full-time student in the form of 10 equal annual installments. Interest at three percent begins with the first payment. The money may be repaid sooner if convenient, with a corresponding saving in interest, or the 10-year period may be extended if circumstances warrant. In case of death or disability the debt is cancelled.

The second program of immediate interest to parents is Title VIII of the act under the slightly misleading heading of Area Vocational Education Programs. Under this plan $15 million per year for four years has been authorized to be allotted among the states.

Vocational training has long been a familiar part of every state school system in such areas as agriculture, home economics, etc. The purpose of Title VIII is to expand these programs to include training for "highly skilled technicians in recognized occupations requiring scientific knowledge." Complete details on Title VIII have not yet been published, but subject matter is expected to include electricity, electronics, atomic energy, engineering, chemistry, and a number of similar interests.

Though engineers are in short supply in the United States, the shortage of technicians is even worse. It takes five technicians to back up every engineer if he is to employ his creative ability to the fullest.

This program is designed to help both young people and adults. The adults may be workers who need additional training for higher-level jobs, and the youth must have finished junior high or be at least 15 years of age and able to profit from the instruction.

Parents who are interested in the student loan program under Title II may write for a six-page leaflet entitled: "The National Defense Student Loan Program Authorized by The National Defense Education Act of 1958."

Address:

Publications Inquiry Unit
U. S. Office of Education
Washington 25, D. C.

The leaflet is free.

—T/SGT. J. K. O'DOHERTY

Temporary Royalty

by T/Sgt. Pat Rutter
Clark AB, P. I.

Lights! Action! Camera! Forty-eight hours straight out of Hollywood—scenario by the Airmen's Open Mess, Clark AB, P. I.

Weekly, the club holds a drawing for members with the lucky winner receiving a week-end in Manila; room and meals at the plush Filipinas Hotel; use of the club-owned, chauffeur-driven Continental; and $50 expense money.

Recently, for the first time, a young married couple, A/3C Randall Benton and his wife, Nedra, were the honored guests.

A weekend whirl of luxury living, breakfast in bed, sightseeing, shopping, and night clubbing—and then back to Clark to remember a dream for years to come.

"It was heaven," sighed Nedra.

"We'd have saved our pennies for a long time to afford a weekend like that," reasoned Randy.

From the veranda of their hotel, Nedra and Randy look out over Manila Bay before starting their weekend whirl of royal living.

←

And in the evening, a look at the local night life. As the limousine stands by, the Bentons seek relaxation after their busy day.

Photos by A/1C Dewey Wren

They Guard the Columbine

The life of the President of the United States may depend upon how well they do their job.

by Capt. Ted R. Sturm
(USAF, Ret.)

A quick inspection seldom reveals a flaw in the appearance of the unit. From left, Capt. Jack Birkenstock, M/Sgt. Eugene Bishop, M/Sgt. Lloyd D. Campbell (who, along with Bishop, has been with the guard for 12 years), S/Sgt. Ernest E. Graves, S/Sgt. Donald O'Donnell (two years with the guard), S/Sgt. Richard C. McFadden, and S/Sgt. Charles H. Arrowood. Not shown is S/Sgt. Crafton L. Monk, a member for a year and a half.

AT THE entrance to a roped enclosure, within which rests the Presidential aircraft *Columbine III*, stands an Air Force noncommissioned officer who shares an awesome responsibility for the life of the President of the United States.

He is a member of one of the most elite units in the Air Force—the Presidential Aircraft Security Guard. Consisting of eight crack air policemen, the unit has but one *raison d'etre:* To protect the Presidential aircraft.

Yet this mission by itself is not the sole criterion for bestowal of the coveted military classification of *elite*, because, however important, to guard the *Columbine* well is not enough. The men of the guard must do much more.

"My men are the epitome of the *iron hand in a velvet glove*," says Capt. Jack Birkenstock, security officer for the Presidential aircraft.

"We must deal firmly, but above all, diplomatically with thousands of people who want to examine the *Columbine*."

The enormity and significance of this aspect of the guard's work is readily apparent considering the many places visited by the President. From crowds of Americans with mixed political loyalties to the members of the staffs of varied foreign governments, the guards must conceal the *iron hand* and apply an extremely flexible *velvet glove* to any situation short of an obvious sabotage attempt.

To the curious, it is seldom apparent that the polite, friendly sergeant, explaining why they can't board the *Columbine*, is a specialized law enforcement officer handpicked and highly trained for his job. Yet each man, in addition to four years civilian or military law enforcement experience, is also trained in the use of all air police weapons, qualified as a sharpshooter with the .38 calibre revolver, has undergone special training with the U. S. Secret Service, USAF Office of Special Investigations, and local police schools such as the Arlington, Va., Police Academy.

Guarding the *Columbine* is a 24-hour-a-day job. Whether the big, four-engine *Super Connie* is taking the President on a trip or setting in her specially designated hangar at the Washington, D. C. National Airport, at least two of the guard members are always nearby with

watchful eyes. Nobody—but nobody—gets inside the roped area without close scrutiny, special permission, registration, and verification against an access list.

To see the efficiency of this unit in action, take a typical trip with the President.

Several days (or sometimes only hours) before scheduled departure Captain Birkenstock is alerted in a briefing by Col. William G. Draper, USAF Presidential Aide and pilot. The *Columbine* is getting a routine maintenance check in her hangar. The usual rope, stretched 30 feet from the airplane and augmented by electronic warning devices, holds off all except those on the Presidential Aircraft Access List.

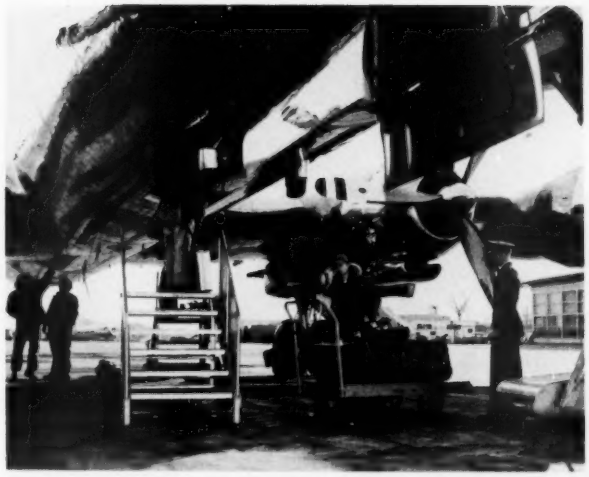
This list, approved by Colonel Draper and the Provost Marshal, MATS headquarters, contains the names of maintenance personnel, crew members, and others who have official business aboard the aircraft. All personnel on the list have received thorough security checks and background investigations.

Outside the hangar, another security guard checks people into the general area. Official air police cars of the 1254th ATG (SM) MATS (parent unit of the Presidential guard) constantly cruise by, supplementing the regular security force.

Captain Birkenstock, after his briefing by Colonel Draper, selects those guard members to go. Sufficient security guards accompany the plane to allow for the normal, 24-hour-a-day guard.

Two or three hours before the President's scheduled takeoff time, the guard unit begins a further tightening of the already securely fastened security watch. The *Columbine* is moved out of its hangar to be prepared for the flight. In the meantime, Captain Birkenstock may have flown ahead to the planned destination to establish the necessary safeguards there. He doesn't always go ahead.

Relaxing at their normal positions the guard members await the *Columbine's* takeoff. They are always the last men to board the aircraft. Left to right: McFadden, Arrowood, Graves, and Bishop.



Keeping a watchful eye on the loading of crew baggage is guard member S/Sgt. Ernest E. Graves. The baggage is under guard from the time it is packed, so that no explosive device can be smuggled inside. Graves has been with the Presidential security guard for over two years.

It depends on the destination and the amount of advance notice for each flight.

Fuel from special stores is put into the tanks by cleared members of the regular maintenance crew. As people board the *Columbine* to perform the myriad of official functions in preparation for the takeoff, each person signs the roster, shows identification cards, is checked against the access list, and then passed aboard.

Members of the guard are at posts near the entrance to the enclosure, at each aircraft door, around the perimeter, and near the wings and tail of the *Super Connie*.

As the baggage for the trip is wheeled in (under guard from the time it was packed) one of the security guards moves to the baggage compartment hatch to watch the loading of each piece.

Time nears for the arrival of the Presidential party. The area outside the *Columbine's* enclosure fills with people. Usually a group of sightseers is on hand at each departure. U. S. Secret Service men stand, inconspicuous but unmistakable, at strategic locations. Newsmen and cameramen vie for choice spots. Despite the apparent confusion, the men of the guard are concerned about one thing only: The safety of the *Columbine*.

Why? Because anyone intent upon the life of the President might well make the attempt by sabotaging the aircraft. It is interesting to note that the U. S. Secret Service is responsible for the safety of the President's person; the guard for the safety of the President's airplane.

Within seconds after the Presidential party climbs aboard (with the security guards in their places near the crew compartment) the *Columbine* begins to move. As it poises briefly at the end of the runway, Captain Birkenstock maintains communications with his men on board and keeps a close visual check until the airplane takes off. As it speeds down the runway, lifts into the air, and climbs to altitude, the guard relaxes, for only while the *Columbine* flies can the men ease their vigil.

Play Ball!

Army, Air Force, and civilian scientists team up in a supersonic game of pitch and catch.

A STRANGE ball game was played at Holloman AFB, N. Mex., last year. The ball was a 120-pound shell "batted" from a 155mm. howitzer. The "outfielder" was a special rocket sled operating on the Air Force supersonic test track.

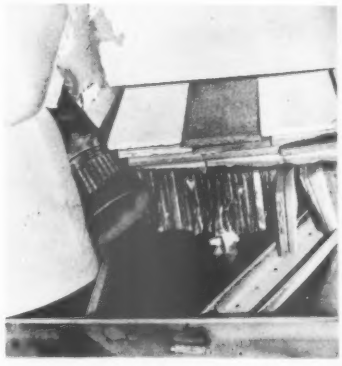
Dubbed "Catcher's Mitt" the novel project was prompted by Army ballistic analysts who wanted to recover artillery shells intact and undamaged to study what happens to the fuse during free flight. The special 10,000-pound sled, powered by four rocket boosters delivering 200,000-pounds thrust (one-fourth more than needed to launch a *Thor*) was built for the joint research project. Resembling a box car, it was named "The Monster."

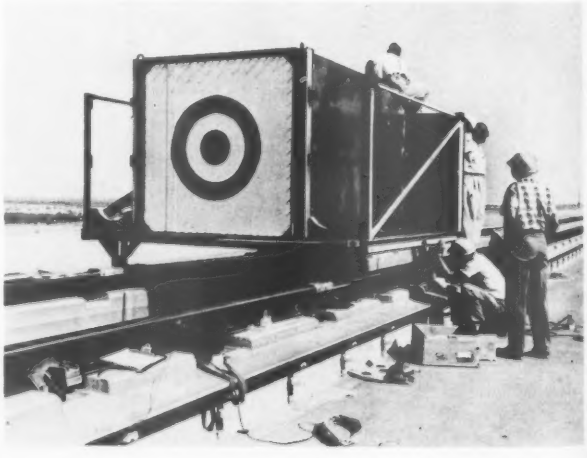
Crux of the game was the interception and soft catch of the shell whizzing in a 1,100 m.p.h. "line drive," while the sled clipped off a mere 1,000 m.p.h. The whole operation took a seant 17/1,000 of a second. Some of the problems and ingenious developments included sunken gun emplacement; an intricate switch firing mechanism that permitted the sled to fire the cannon; exacting gun elevation and trajectory; a mitt of solidly packed foam rubber, celotex, and polyurathane with steel and plywood backing; and many others.

Nine times "The Monster" was fired; the howitzer, six. On each of the six synchro-firings the catch was made giving the unified team a perfect game record and interesting results for ballistic experts.

Above, "The Monster" streaks along AFMDC's test track to catch artillery shell.

At right shell is embedded in mitt of foam rubber, celotex, and polyurathane.





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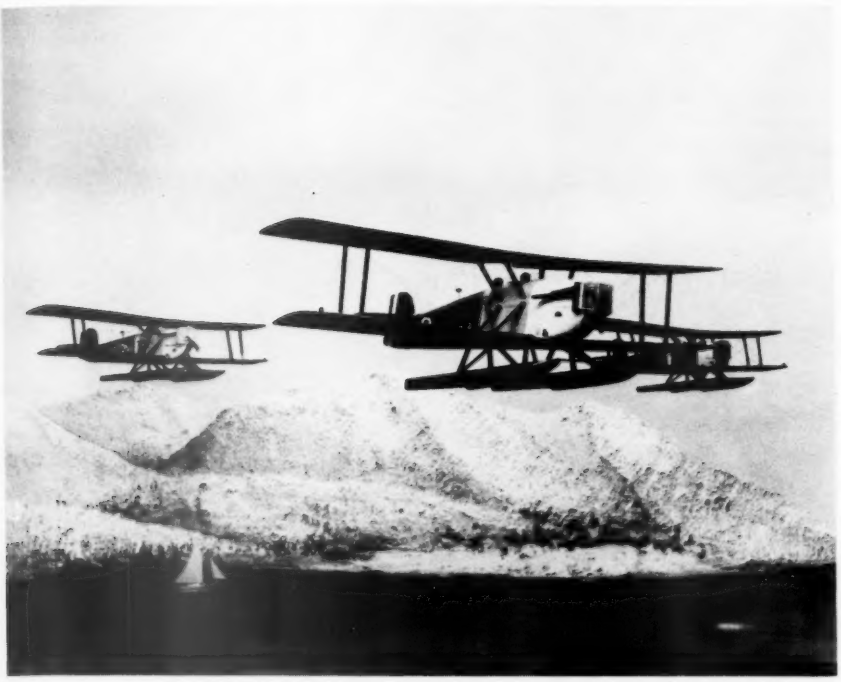
This specially built rocket sled was used at Air Force Missile Development Center's 35,000-foot captive missile test track during project "Catcher's Mitt" at Holloman Air Force Base.



by T/Sgt. Harold L. Craven
Airman Staff

AROUND THE WORLD IN 175 DAYS

On the morning of April 6, 1924, the World Flight Squadron of the Army Air Service set out from Seattle, Wash., to attempt the first around-the-world flight. There were eight fliers—each with a rabbit's foot as a good luck charm—and four open-cockpit biplanes. None of the specially built Douglas *World Cruiser* airplanes carried parachutes or life preservers.

The fliers had attempted to depart on the previous day, but the flight commander, Maj. Frederick L. Martin, had damaged the propeller and one pontoon of the flagplane *Seattle* on his takeoff run. After a day's delay for repairs a new start had been made and the *Seattle, Chicago,* and *New Orleans* were airborne. The *Boston,* too heavily loaded to get off the water, was delayed 40 minutes while its occupants discarded their rifles, extra boots, personal effects, and other cargo.

As the *Seattle, Chicago,* and *New Orleans* headed toward Prince Rupert, B. C., 1st Lt. Leslie P. Arnold, flying as mechanic in the *Chicago,* began recording his impressions in a huge notebook:

"As I look down on Lake Washington and Seattle and see them growing smaller and smaller behind us, I keep wondering what the people in the streets are thinking . . . I wonder how many of us will get all the way around . . .

"Visibility is only fair this morning, but above the haze that half veils the earth the summit of Rainier stands out as clear as crystal. No wonder the Indians call it Iahuma, the mountain that is God. I saw Lowell (1st Lt. Lowell P. Smith, Chicago's pilot) glance back over his shoulder at it several times, and I'm sure the memory of its grandeur will inspire us all the way around the world. This undertaking somehow makes you feel the presence of the Ruler of the Universe as you have never felt it before."

En route to Prince Rupert the airmen encountered rain, sleet, hail, fog, and snow. On one occasion they came out of a fog bank at wave-top height and narrowly

missed an excursion boat. When the three planes reached Prince Rupert in a driving snowstorm the *Chicago* and *New Orleans* landed without damage. Major Martin, temporarily blinded by the snow, sideslipped the *Seattle* into the water from a height of 30 feet, breaking the outer struts and snapping three vertical wires. Martin's mechanic, S/Sgt. Alva L. Harvey, climbed out of the cockpit with a cry of disgust and tossed his "lucky" rabbit's foot into the sea. A few minutes later all six fliers went ashore where they were met, according to Arnold's diary, by the mayor, who "stood there in the snow looking like Santa Claus."

"Gentlemen," said the mayor, "you have arrived on the worst day in 10 years."

The *Boston,* carrying 1st Lt. Leigh Wade, pilot, and S/Sgt. Henry H. Ogden, mechanic, landed at Prince Rupert 35 minutes behind the others. On the morning of April 10, after the *Seattle* had been repaired at a local shipyard, the world fliers took off in the rain for Sitka, Alaska. They reached Seward three days later.

Trouble continued to plague the *Seattle.* On April 15 the other planes flew to Chignik, without incident, but Martin and Harvey were forced down at Kanatak due to an oil leak.

The crews of the *Chicago, Boston,* and *New Orleans* rested one day at Chignik, then proceeded to Dutch Harbor where the *Boston's* engine was changed and the fliers awaited the arrival of their flag-plane. Dutch Harbor was one of several locations along the route where supply depots had been established for the World Flight Squadron. Because several nations were attempting to be first to make an around the world flight, elaborate preparations had been made to assure the success of the American attempt. British, French, Italian, and Portuguese pilots had already entered the race.

Martin's Crash

Back at Kanatak the ill-fated *Seattle* was delayed by maintenance and weather until April 25, then flown to Chignik. En route from Chignik to Dutch Harbor, the *Seattle* was demolished. Martin flew it into a mountain top in a heavy fog. Martin crawled out of the wreckage with minor face injuries. Harvey survived the crash without a scratch.

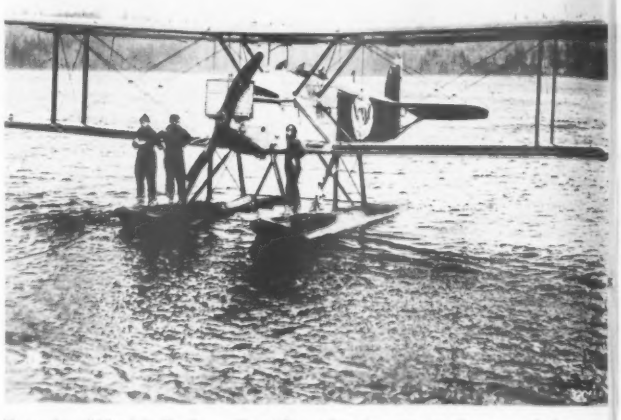
Gathering together as many items as they could carry, including emergency rations, they headed south on foot. Fog and snow blended into a white confusion that resulted in their arrival back at the wreckage two hours later. The first night they slept in the baggage compartment, cold, crowded, and uncomfortable, then they built a snow shelter. After waiting two days for the fog to lift they set out in spite of it on a trek to the coast. On May 5 they reached an uninhabited cabin and found a small cache of food. They rested there until May 10, then traveled 25 miles, on foot and by canoe, to Port Moller where they radioed Washington.

A week earlier, on orders from Maj. Gen. Mason M. Patrick, Chief of Air Service, the *Chicago, Boston,* and *New Orleans* had resumed the flight under command of Lieutenant Smith. They flew to Atka, where they were weathered in for six days, then pushed on to Attu.

Russian Hospitality

From Attu the airmen flew to an American ship anchored near Soviet-controlled Komandorski Island and took on fuel for their flight to Japan's Kurile Islands. Because weather conditions made immediate continuation of the flight impracticable the fliers decided to remain alongside the ship overnight. Russian authorities boarded the ship to determine their mission, then sent a radio message to the Soviet government asking permission to invite the Americans ashore. Next morning, as the world fliers prepared to continue their flight, an answer was received, requesting their immediate departure.

Plagued by snowstorms and fog the airmen flew to the Kurile Islands where hundreds of Japanese civilians greeted them. At Hitokappu a delegation of children surrounded them and sang the American and Japanese national anthems.



Douglas World Cruiser *Seattle* prior to start of around-the-world flight.

Dense fog prevented their departure until May 22 when they took off for Minato, Japan. They replaced engines on all the planes at Kasumigaura and were guests of honor at numerous official functions between May 7 and June 4. In Tokyo Col. L. E. Broome, advance officer for Maj. Stuart MacLaren, British world flier, informed the Americans that MacLaren had crashed in Burma. He had survived the crash without injury to himself, but his airplane was beyond repair. Despite the fact that the English pilot was a competitor, Lieutenant Smith, on his own initiative, made arrangements for the U. S. Navy to transport a replacement aircraft to him.

The Japanese showered the Americans with flowers, paintings, and other gifts. On one occasion special tribute was paid to the pilots but not to their assistants. Smith promptly asked that the others be accorded equal honors, explaining that the mechanics were as important as the pilots.

Major Martin and Staff Sergeant Harvey following crash of Seattle and 10 days in Alaskan wilderness.

Promotion for Ogden

"This was mighty decent of Lowell," Arnold wrote in his diary, "and we all appreciated it, but none more so than Ogden who had been a sergeant up to now. Lowell cabled Washington from Tokyo and asked General Patrick to make Hank a lieutenant like the rest of us. So from here on we were all lieutenants."

On June 4 the *New Orleans* and *Boston* crossed the China Sea to Shanghai in fair weather. It was the first entire day of good flying weather the world fliers had encountered. The *Chicago,* having had difficulty taking off, followed on June 5 under less favorable conditions. In Shanghai the Americans dined on shark fins, hundred-year-old eggs, and bird's nest soup as guests of Chinese aviation leaders.

While flying from Shanghai to Tchinkoen Bay the aviators met the French world flier, Capt. Peltier D'Oisy, who was flying a replacement airplane, having lost his original in a crash near Shanghai. D'Oisy terminated his world flight attempt in Japan a few days later.

En route from Amoy to Hong Kong on June 8 the Americans flew through a small typhoon. On June 10 they continued to Haiphong in perfect weather. There they learned that two Portuguese aviators, also trying to fly around the world, had crashed in Burma, but were now continuing their flight in an airplane they had obtained from the British Royal Air Force.

The *Chicago* was forced down between Haiphong and Tourane, its Liberty engine damaged beyond repair as a result of a water leak. The *Boston* and *New Orleans* waited at Tourane while a Navy destroyer rushed a new engine to the *Chicago.* When the planes were reunited the World Flight Squadron moved on to Kamponsong Bay, French Indo China, then to Bangkok, Siam (Thailand), and Tavoy, Burma.

While making their takeoff runs at Tavoy on June 20 the *Chicago* got into the air safely but the *Boston* and *New Orleans* were damaged by rough seas. The *Boston* continued its flight to Rangoon despite broken vertical wires, but the crew of the *New Orleans,* 1st Lt. Erik Nelson, pilot, and 2d Lt. John Harding Jr., maintenance officer, elected to remain behind and make repairs. They rejoined the others at Rangoon.

On the morning of June 25 the three American planes passed over British world flier MacLaren between Rangoon and Akyab. MacLaren had taken refuge in a protected harbor to await the passing of the typhoon season. He had decided to take no unnecessary chances with the airplane delivered to him by the American Navy.

Anxious to get out of the typhoon belt as quickly as possible the American world fliers left Akyab in a heavy rainstorm on June 26 and passed through a number of small storms before reaching Chittagon, Burma, at 9:40 a.m. They refueled alongside the destroyer *Preston* and

Crash victims en route to Port Moller.

departed at noon for Calcutta, India, the approximate half way mark on their global flight.

Aerial Hitchhiker

At Calcutta wheels were substituted for floats, engines were changed, and wings were replaced. Before the planes departed for Allahabad, Associated Press reporter Linton Wells hid in the *Boston's* cargo compartment. When Lieutenant Smith discovered the stowaway at Allahabad he put him to work carrying gasoline cans, then cabled General Patrick for permission to take him along as an extra passenger. No answer was received, and on the theory that silence gives consent, Wells was allowed to share Ogden's cockpit on the flight to Umballa on July 2. How much farther Wells journeyed with the world fliers was not disclosed in Lieutenant Smith's official report to General Patrick following the world flight. For that matter, Smith neglected to mention that Wells had ever been aboard the *Boston.*

Russian delegation meets fliers off Komandorski Island.

The world fliers reached Karachi, on India's western border, on Independence Day. Engines were changed there and three days later the flight continued along the rugged coastline to Chahbar and Bandar Abbas in Persia (Iran). On July 8 they reached Bagdad, Mesopotomia (Iraq).

They followed the Euphrates River to Allepo, Syria, on July 9, then reached Constantinople (Istanbul), Turkey, on the following day. After three days rest they moved on to Bucharest, Rumania, then to Budapest, Hungary, and Vienna, Austria.

On the morning of July 14, Bastille Day in France, the fliers set out for Paris, hoping to get there in time to join in the holiday celebrations. Thirty minutes after leaving Vienna they encountered rain and low-hanging clouds. Flying below the clouds they followed the Danube past Linz, Austria, then took a winding course through mountain passes past Munich, Germany, and finally landed at a small flying field at Strasbourg, France. The planes were refueled quickly and put back on a heading toward Paris.

Folies Bergeres

The Americans had looked forward to their visit to Paris as an opportunity to see the city and have a good time. They arrived tired and sleepy, wanting nothing more than a good night of sleep. Instead they attended receptions, met countless officials, participated in a radio broadcast, gave press interviews, and signed hundreds of autographs. Finally, when it appeared they could go to bed, an assistant cabinet member insisted on taking them to the Folies Bergeres. After falling asleep several times during the performance they gave up and went to their hotel. There each put the following notice on his door:

PLEASE DO NOT WAKE US UNTIL NINE TOMORROW MORNING UNLESS THE HOTEL IS ON FIRE, AND NOT THEN UNLESS THE FIREMEN HAVE GIVEN UP ALL HOPE.

On July 15 the fliers put a wreath on the Tomb of the Unknown Soldier, dined with General Pershing, and reviewed Olympic delegates and athletes from all over the world. They were offered the Legion of Honor by France's President Doumergue. Because they had not received special consent from Congress to accept foreign decorations they declined with thanks, and Doumergue gave them autographed photographs of himself instead.

The three American airplanes arrived in London on July 16, escorted by a Pathe News camera plane and a large French passenger aircraft. There Britain's First Lord of the Admiralty, in recognition of the assistance the world fliers had given the English aviator MacLaren, offered to put the British fleet at Lieutenant Smith's disposal for patrolling the North Atlantic. The U. S. Navy, however, had already been detailed to that duty.

At Brough, England, engines were changed again and wheels were replaced with floats. The three planes moved on to Kirkwall, Orkney Islands, through rain and fog, on July 30.

On August 2 the World Flight Squadron departed for Iceland. Ten minutes after takeoff they encountered a fog bank too high to climb over and too close to the water to fly under. The pilots flew into it, planning to maintain visual contact with one another by flying in close formation. The *New Orleans* got caught in the propwash of one of the other planes and fell into a spin. Its pilot, 1st Lt. Erik Nelson, made a recovery and came out in the clear a few feet above the water. He continued his flight to Hornafjord, Iceland, unhampered by fog.

The *Chicago* and *Boston,* meanwhile, had returned to Kirkwall with word of the *New Orleans'* disappearance, and surface vessels were dispatched to search for Nelson and his companion.

Down in Atlantic

On August 3, after learning that the *New Orleans* had reached Iceland safely, the crews of the *Chicago* and

Boston again departed Kirkwall. Ninety minutes later the *Boston* lost its oil pressure and Lieutenant Wade landed it roughly, nearly wrapping the left pontoon around the lower wing. Smith and Arnold buzzed the crippled airplane but Wade and Ogden waved them off. The *Chicago* headed full throttle for the destroyer *Billingsby,* 100 miles away near the Faroe Islands. A message dropped on the *Billingsby* was relayed by radio to other ships, and soon several vessels were on their way to the *Boston.*

The British trawler *Rugby-Ramsey* got there first, followed by the *Billingsby* and the *Richmond.* In trying to haul the *Boston* aboard the *Richmond* the lifting tackle gave way, damaging the airplane beyond repair.

On August 16 the Italian world flier, Locatelli, joined the remaining U. S. fliers at Hornafjord, Iceland. He had made no advance preparation for crossing the Atlantic but was relying on supplies left over by the Americans. According to an agreement between the U. S. and Italian governments, Locatelli was to remain one base behind the Americans. At Lieutenant Smith's request, however, General Patrick radioed permission for the Italian to fly with, rather than behind, the U. S. fliers. En route to Fredricksdal, Greenland, on August 18, Locatelli's fast Dornier seaplane outdistanced the Americans. At Fredricksdal the Americans learned that he had gone down in the Atlantic. He was rescued later but his plane was a total loss.

The world fliers flew to Ivigtut, Greenland, through rain and snow, on August 24, and to Icy Tickle Bay, near Indian Harbor, Labrador, on August 31. Hawkes Bay, Newfoundland, was reached on September 2 and Pictou Harbor, Nova Scotia, on the following day. There Wade and Ogden rejoined the flight in a new airplane, the *Boston* II, that General Patrick had sent them so that they could continue the world flight with their fellow officers.

Conquering Heroes

After some difficulty with the *Boston II* the airmen flew to Mere Point, Maine, on September 5, then to Boston on the following day. There each received a huge silk American flag, sabres, Paul Revere silver bowls, silver wings, watches, and flowers. New York rolled out its best red carpet for the fliers on September 8 and on the following day President Coolidge and his entire cabinet were on hand to greet them at Bolling Field, near Washington, D. C.

On September 13, accompanied by a fleet of escort planes, the World Flight Squadron continued on its way to Seattle, official beginning and ending point of the around-the-world flight. They landed at 14 more cities en route and were greeted as conquering heroes in each. Upon landing at Seattle they were informed that an elaborate reception, which would probably last three days, awaited them.

From the time they had first arrived back on the American continents, on August 31, the world fliers had been deluged with congratulatory messages. Among them was this one from General Patrick:

"There is one way in which we may well imitate the great explorers and discoverers of the past. Without exception these daring men, at the end of their voyage or expedition, drew apart, knelt in prayer, and thanked God for the privilege which had been bestowed upon them. All of us now, with bowed head and humble hearts, offer up our thanks to the allwise Creator that this little band we sent into the West has come to us safely out of the East, having been the first of all the generations of men to circumnavigate this terrestrial sphere by air."

World flight commander, 1st Lt. Lowell Smith, with reception committee in Paris.

Flagplane *Chicago* touches down at Crissy Field, San Francisco.

Conclusion of world flight at Sand Point Airdrome, Seattle.

Courtesy of National Air Museum

ADVENTUROUS MEN

The first world fliers were capable and adventurous men. Shown left to right are:

1st Lt. Leigh Wade, pilot of *Boston* and *Boston II,* who served as a private against Mexican revolutionist Pancho Villa in 1916. He learned to fly with the RAF in Canada in 1917, commanded the 120th Aero Squadron in France during WW I, and helped Gen. Billy Mitchell prove the feasibility of sinking battleships with aerial bombs.

2d Lt. John Harding Jr., maintenance officer for the World Flight Squadron and mechanic for the *New Orleans,* who served successively as kitchen policeman, ditch digger, auto mechanic, and master aviation mechanic during two enlisted Army hitches, then accepted a reserve commission and civilian employee status with Air Service at McCook Field, Dayton, Ohio. He was called to active duty to participate in the world flight attempt.

1st Lt. Lowell H. Smith, pilot of the *Chicago,* who was engineering officer for Pancho Villa's three-plane air force before joining the Army Signal Corps in 1917. He earned the Mackay Trophy for his part in the Transcontinental Reliability and Endurance Contest from New York to San Francisco in 1919. He participated in the first air-to-air refueling flight in 1923.

1st Lt. Erik H. Nelson, engineering officer for the flight and pilot of the *New Orleans,* once traveled around the world as a merchant seaman. He participated in the Gulf to Pacific flight in 1919, the New York to Nome Expedition in 1920, and the bombing of three captured German ships off the Virginia coast in 1921. In 1922 he won the Detroit News Aerial Mail Trophy and in 1923 he was engineering officer for the San Antonio to Puerto Rico flight.

2d Lt. Henry H. Ogden, mechanic for the *Boston* and *Boston II,* was considered one of the best enlisted mechanics in the Air Service at the time of his selection as a world flight participant. His hobbies included wing walking and jumping from airplane to airplane in flight.

1st Lt. Leslie P. Arnold, assistant engineering officer for the flight and mechanic for the *Chicago,* served as a pilot with the 1st Observation Squadron during World War I. He also participated in the 1921 battleship maneuvers.

SLANTS ON SPACE

/// The partial eclipse of the Moon on March 24 will be visible over a wide area globally. Airmen on duty in the extreme western Pacific and vicinity of Australia will be the first to see the beginning of this celestial spectacular. The phenomenon then can be seen from the Asian mainland, except for the extreme northeastern part, over the Indian Ocean, Africa, the eastern part of the South Atlantic, Antarctica, Europe, the Atlantic Ocean area except for the extreme northwestern part and the eastern tip of South America. It will not be visible in Washington, the Nation's capital.

The eclipse occurs 45 days after the date the Moon will be at perigee closest to the Earth in February. For March the three-day period most favorable for a successful lunar probe's arrival in the Moon's proximity centers around March 9.

/// Now that the National Aeronautics and Space Agency, supervisor of all scientific investigation on circumplanetary regions, has placed the planet Mars on the priority list of solar system bodies to be the objective of rocket probes in the coming months, the well informed airmen will want to add to his vocabulary the word: *Aerography*. This is the descriptive word for the scientific study of Mars which is the equivalent to what geography is for our Earth. The word derives from the ancient Greek word for the ruddy planet, *Ares*. When the Roman civilization replaced the Grecian in ascendancy, it renamed the planet, Mars, for its god of war which in Greek Mythology was called *Ares*.

SEATO and the Soul of Asia

by T/Sgt. John K. O'Doherty
Airman Staff

On February 23, 1955, H. E. Premier Pibulsonggram of Thailand officially opened the first meeting of the Council of the Southeast Asia Collective Defense Treaty (SEATO) at Bangkok. Four years of earnest cooperation attest to the determination of the Asian members to preserve their rights and their sovereignty against Communist colonialism.

★ ★ ★

MILITARY aggression by Communist forces against the territory of the Republic of China failed to attain its objective in the fall of 1958 when the United States demonstrated that the American "paper tiger" was indeed equipped with teeth and intended to fulfill its treaty obligations, in this case the bilateral defense agreement with the Republic of China. The crisis which endured in the Formosa Straits over a period of several months served to focus public attention on the Far East and the efforts of free nations to combat the cancer of Communist encroachment.

Prior to the Russian Revolution of 1917, Nikolai Lenin, archpriest of Communism, outlined his program for world domination. "First," he said, "we will take Eastern Europe, then the masses of Asia, then we will surround America, the last citadel of capitalism."

Lenin's successors initiated expansion in Europe in the period before World War II with the annexation of the Baltic countries—Esthonia, Latvia, and Lithuania—followed by the seizure of Czechoslovakia, Poland, Bulgaria, Hungary, Rumania, East Germany, and Albania after the war. The Marshall Plan and the North Atlantic Treaty halted this tide of Communist conquest in Europe, but the Soviets reintensified their efforts in other directions.

At Yalta in 1945 the Soviets were awarded control of Manchuria, the most strategic base in all Asia for furtherance of their ambitions. From here they promoted the Communist Revolution in China (1945), supplying the forces of Marxist Mao Tse-tung with weapons and materiel taken from the defeated Japanese. Within four years conquest of the Chinese mainland was complete. This was followed by the invasion of Korea (June 1950), the occupation of Tibet (October 1950), and the war in Indo-China which dragged out from 1946 to 1954.

The truce of Geneva on July 21, 1954, split the Indo-Chinese state of Viet-nam into two parts—Communist-controlled North Viet-nam, and Free South Viet-nam. (The United States did not subscribe to the Geneva Accords of 1954.)

Thus the box-score of Communist expansion in Asia, less than 10 years after World War II, included the mainland of China, North Korea, Tibet, and North Viet-nam. The partition of Viet-nam was the climax in the series of events leading to the founding of the Southeast Asia Treaty

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Organization, designed to do for the free people of Asia what NATO has accomplished for the countries of western Europe.

"The Third Front in Asia"

With Communism firmly entrenched on the continental land mass, the southeastern peninsula of Asia—Thailand, Laos, Cambodia, and South Viet-nam—became what Secretary of State John Foster Dulles called the "Third Front in Asia," the other two being the strongly guarded northern border of South Korea and the straits of Formosa.

In the face of ever-mounting threats to freedom and self-determination, the representatives of eight nations gathered at Manila, Republic of the Philippines, on September 8, 1954, to sign the Southeast Asia Collective Defense Treaty. The treaty, known as the Manila Pact, binds together the countries of Australia, France, New Zealand, Pakistan, Republic of the Philippines, Thailand, the United Kingdom, and the United States for mutual defense against Communist aggression. The agreement became effective on February 19, 1955, when it had been ratified by each of the signatory nations.

Like the North Atlantic Treaty which unites the nations of western Europe, the Southeast Asia Treaty is in conformance with Article 51 of the United Nations Charter which recognizes the right of member nations to enter into bilateral or multilateral agreements for mutual defense. Just as membership in NATO is open to like-minded nations of Europe, any country of Asia which subscribes to the ideals and principles of SEATO may be admitted to membership upon the unanimous agreement of the present members.

The Southeast Asia Treaty Organization Council—comprising the foreign ministers of the respective countries—met for the first time at Bangkok, capital of Thailand, on February 23, 1955. During the three-day conference the council reached agreement on policies and established machinery to promote the aims of the alliance. With regard to military defense, Secretary of State Dulles made this statement in his subsequent report to the American people: "We shall rely chiefly on mobile allied power which can strike an aggressor whenever the occasion may demand. That capacity will, we believe, deter aggression. We shall not need to build up large static forces at all points, and the United States contribution will be primarily in terms of sea and air power."

Under the terms of the treaty, each member recognizes that an armed attack against any other member endangers its own peace, and each is pledged to take action under its own constitutional processes to meet the danger. By a protocol to the original treaty the areas of Cambodia, Laos, and South Viet-nam are included as nations which are eligible for protection under SEATO.

The Military Posture

SEATO does not maintain an international military command like General Norstad's Allied Command in Europe which serves the nations of NATO. Instead the military activities of SEATO are planned by the Military Advisers. This body consists of one senior military representative of each member nation and meets periodically to review and revise strategy for defense of the treaty area.

The SEATO Military Planning Office is permanently established at SEATO headquarters in Bangkok. This group, in which each member nation is represented, develops detailed plans for defense and arranges for joint military training exercises by SEATO forces.

At the fourth annual meeting of the SEATO Council held at Manila in March of 1958 the Military Advisers announced completion of four major SEATO military training exercises during the year as well as a number of lesser maneuvers employing various combinations of land, sea, and air forces. At this same meeting the United States and the Republic of the Philippines announced that they intended to cosponsor a defense college in the Philippines which would include the members of SEATO.

None of the Asian members of SEATO is strong enough to withstand overt aggression by the Communists independently, but the collective capability developed in four short years of cooperative effort has provided a formidable buffer against any real danger of immediate armed attack. But the danger of subversion and infiltration—of the type which brought about the downfall of Czechoslovakia and its neighbors—continues to be a very real menace, and is of primary concern to the organization.

The Rise of Nationalism

From the beginning of history, oriental routes of trade, migration, and conquest have converged on Southeast Asia. Inevitably it became a goal in the European race for colonies, with Portugal, Spain, Holland, England, and France competing for prizes over the course of centuries. Only the Kingdom of Thailand managed to retain its independence throughout the age of European colonial expansion.

The end of World War II ushered in an era of nationalism, and as the nations of Southeast Asia gained their independence the Communists exerted every effort—force as well as subversion and propaganda—to draw the new nations struggling with the problems of political infancy into the Soviet orbit.

JAMES BAMA, *Society of Illustrators of New York, from Air Force Art Collection*

Construction workers at an air base in Thailand

Because of problems in economic development, rapid political evolution, and peculiarities of the population structure, some countries of Asia are particularly susceptible to the destructive influence of subversive groups controlled from outside the country. For this reason the cultural and economic aspects of the Manila Pact share a position of at least equal importance with the military alliance. This economic and cultural cooperation is essential if the countries of Southeast Asia are to attain political and social maturity in an atmosphere of security, free from domination by the Communist bloc. SEATO, in addition to promoting prosperity and progress among the member nations, provides evidence to all the people of Asia that free institutions can give them more solid satisfactions than the illusory promises of Communism.

Civil activities of SEATO are directed by the Council Representatives who meet at frequent intervals between the annual sessions of the Council of Ministers. Council Representatives are, in most cases, the heads of diplomatic missions of the member countries resident in Bangkok.

The civil programs of SEATO are carried out by the Secretary General and the Secretariat, subject to direction from the Council Representatives and with the benefit of advice from expert committees in the fields of economics, countersubversion, and information, culture, education, and labor. The Secretariat is composed of an international staff upon which all the member countries are represented. The position of Secretary General is occupied by Mr. Pote Sarasin of Thailand, and his function in SEATO is approximately comparable to that performed by M. Paul-Henri Spaak, Secretary General for NATO.

Mutual Aid

The Asian members of SEATO, as allies of the United States, receive military and economic aid in the form of equipment and technical assistance under the Mutual Security Program, as well as sharing in other cooperative programs. Australia, New Zealand, France, and the United Kingdom have each contributed sizable sums of money toward promoting the goals of SEATO as well as the services of hundreds of technicians and instructors in a variety of fields.

France, for example, has established schools in Laos, Cambodia, and South Viet-nam, staffed them with teachers, and awarded hundreds of scholarships for study at French universities. New Zealand has provided significant help to member nations in areas of health and agriculture. Hundreds of educators have been exchanged between the United States and SEATO countries; Thailand has trained teachers from Laos; courses have been provided in New Zealand for students from Pakistan and Thailand; the Republic of the Philippines has awarded scholarships to Philippine universities. Every nation has contributed substantially of its cultural and economic resources.

Australia and the United States are providing help in various aspects of a SEATO program of vocational guidance and on-the-job training, and this aid may later be supplemented by assistance from France, New Zealand, and the United Kingdom. At the suggestion of Thailand, SEATO has agreed to sponsor a Graduate School of Engineering at Bangkok. The United States is lending major assistance to this project, and offers have been received from other members as well. Dozens of publications in thousands of copies are exchanged between the partners in English, Thai, Urdu, and Bengali.

If international Communism has relinquished armed aggression—at least for the moment—as an instrument of expansionist policy, this does not mean that the apostles of Marx and Lenin have abandoned their crusade to capture the soul of Asia. The pressure of subversion, applied through every opportunity that circumstance may provide, continues to be a threat to orderly progress and permanent peace. But the collective security system created under SEATO has inspired courage and confidence so that the young nations of Asia are now better equipped to identify, expose, and repel those enemies who garb themselves in the cloak of deceit and speak with the tongue of the serpent.

FROM OUT

Sophomore passing sensation, Rich Mayo, established 13 new marks in USAFA's football record book.

Senior captain, Brock Strom, became the Academy's first All-American when he was named to several '58 squads.

Often during the course of the season, the Cadet Wing was unable to attend road games. But seldom was the football team without the cheers of their classmates. Several times the wing gathered in an auditorium at the Academy and piped their support to the squad via long distance telephone as they listened to a radio play-by-play account. This scene indicated the pandemonium that reigned as the Falcons notched a touchdown in the final nine seconds to drop Oklahoma State's Cowboys, 33-29.

T OF THE BLUE

IT isn't often in the annals of sports that words are inadequate. But, when you attempt to describe the accomplishments of the 1958 United States Air Force Academy Falcons, you begin to believe that Webster stopped a good many pages short of perfection. Superlatives cannot describe the reactions produced by the unheralded "Kardiac Kids" in the course of compiling a 9-0-2 record.

Despite a consensus rating which placed them in the Nation's top 10, the Falcons went into the Cotton Bowl game in Dallas an eight-point underdog to Texas Christian University's Horned Frogs. Two-and-a-half hours later, football fans from coast-to-coast were willing to concede a new football power had arrived on the scene.

During the course of a rugged 10-game regular schedule, the Falcons set no fewer than 47 new Academy football marks. Sophomore passing sensation Rich Mayo led the assault, establishing 13 new marks and tying one other. In addition, USAFA was blessed with its first All-American, senior tackle Brock Strom. Dave Phillips, also a tackle, was named the outstanding lineman in the New Year's Day battle. And Ben Martin, in his first season as head coach, was named Coach of the Year by the Washington, D. C., Touchdown Club.

Even the most critical of fans can look back on '58 with satisfaction. The Falcons have arrived—from out of the blue.

Sophomore Bob Brickey was Mayo's favorite target with 25 receptions and four touchdowns.

Left. Leading ground gainer for the unbeaten Falcons was Steve Galios, senior halfback, who rolled up 527 yards in 116 tries.

A proud and happy coaching staff. Front row, left to right, head coach Ben Martin (Navy), and Tom Berry (Virginia). Standing, left to right, Lt. Bob Peake (Indiana), Capt. John Ignarski (Kentucky), Capt. Alf Miller (Texas), Lt. John Gurski (Navy), Capt. Tom Bakke (Navy), and Lt. Pepper Rodgers (Georgia Tech).

When M/Sgt. Robert T. Muckey got PCS orders to the Philippines he loaded the wife and kids into the family buggy and drove to Travis AFB, Calif., their Aerial Port of Embarkation (APOE). An airman from the Air Traffic Coordinating Office, (ATCO) met them to help with baggage and show them where to go. Sergeant Muckey turned his car over to a civilian agent who prepared it for shipping and saw that it got aboard a freighter to their new station.

BABES

Overseas processing at Travis took but a few minutes at the ATCO reservation desk for Betty-Jo Justus and son Walter recently en route to join Dad in Formosa. The transportation officer at her husband's old base had made reservations in advance. She and Walter showed up on time with orders, identifiction, shot records, and passport all in order and found ATCO people ready to help.

The family service dining room adjacent to the passenger terminal at Travis was designed for Air Force families-on-the-move. Capt. and Mrs. Charles A. Pearce, en route to Japan, found it an excellent place to refuel the family during their pre-flight time.

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En route these Flying Tiger Airlines hostesses prepare for in-flight refueling of Air Force families. Whether dependents travel on MATS military aircraft or aboard a contract carrier, there's good food aboard and facilities to heat baby's bottle.

Editor's Note: *Last year several thousand Air Force families packed their bags and moved to new duty stations. More than half of these moves were to or from overseas stations.*

Thus, it's a pretty safe observation that if you haven't moved, you will. To give you an idea of how the Air Force helps get your family and belongings from one station to the other, THE AIRMAN *checked with USAF's Directorate of Transportation. Here are the basic facts—the details you can get from the Joint Travel Regulations (JTR), AFP 75-1-1, and your base transportation officer.*

AND BOXES

by M/Sgt. Ed Blair
Airman Staff

THERE was a time when an American military man picked up his PCS orders, shouldered his pack, and departed via shanks' mare, a trusty steed, or the bed of a supply wagon—leaving his family to follow as best they could. Times and travel have changed. The 1886 law that entitled military personnel to movement of their personal effects at government expense has evolved into today's Joint Travel Regulations. Current JTRs outline every legal entitlement for the movement of a military member, his dependents, and household goods. However, orderly movement of personnel and their effects is almost totally dependent upon preparatory actions taken at the base to which the member is assigned, or in the case of unaccompanied dependents, the base designated to handle the movement.

In 1956 the Air Force started an experiment in peacetime personnel airlift by sending all unaccompanied officers and NCOs overseas via Military Air Transport Service and its contract carriers. MATS welcomed the opportunity to exercise its air transport system. The plan saved so many man-days formerly spent processing and awaiting surface transportation that in 1957 the program was expanded to include all unaccompanied military personnel. Then, last August, the same reservation system was put into effect for Air Force dependents, accompanied and unaccompanied, going to areas where passports were not required. By October nearly all Air Force dependents had been phased into the direct-reservation system and now approximately 95 percent of all Air Force travelers are making maximum use of MATS' airlift facilities.

Base commanders insure that all overseas travelers are properly briefed on their responsibilities and the importance of timely reporting. This briefing is done by people thoroughly familiar with the system. *It is essential that the traveler follow instructions exactly to keep the system working.* All travelers must apply for passports and get shots promptly, listen carefully to pre-move counselling, and ask questions in order to *understand* what they are expected to do and when. A new overseas movement manual and checklist that will help them understand is being published soon. They must travel light, but dependents assistance programs at en route stops provide them with help when needed. Air Materiel Command's passenger control agencies and Air Traffic Coordinating

Alaskan big game trophies are among Capt. Richard A. Jones' most prized possessions. When he got PCS orders from the flight surgeon's office at Ladd AFB, Alaska, to Baltimore, Md., Captain Jones carefully put them aside for the movers to pack separately from other household goods.

Officers (ATCOs) arrange air reservations which are later confirmed by the traveler. Space reservations are made at the same time arrangements are made with the transportation officer for movement of personal effects and household goods. Once confirmed, reservations are not cancelled for higher priority passengers except in emergencies. A passport control agency monitors passport applications so that they are issued in time for travel.

MATS provides reliable advance air movement schedules, aerial port facilities, and necessary port processing. Processing has been reduced to verification of identity, immunization checks, passport checks, and an emergency data card—all accomplished within a few minutes at the ATCO reservation desk in the terminal.

Under today's system the traveler simply reports to the ATCO at the designated airfield not more than six hours nor less than two hours before scheduled flight time.

Even household goods are airlifted occasionally in certain areas where lack of surface transportation or other conditions warrant. But for the most part, motor van-sea van express modes of transportation are the primary transporters of your household goods.

Shipping household goods is big business within the Air Force; crating, packing, wardrobe services, necessary servicing of household appliances, and storage are all part of the moving services to which each eligible Air Force family is entitled when being moved to a new base. Added services also include the unpacking and placement of each item in the new quarters.

When he picks up his PCS orders, each military person authorized to move personal property at government expense should be issued Air Force Pamphlet 75-1-1, *Personal Property Shipping Information.* This pamphlet tells who can ship what, when, and where; what services can be expected; and what the family should—and should not—do to assist in the move. This general information is supplemented by the previously mentioned briefings and specific information available on request at the base transportation office.

Following instructions in AFP 75-1-1 (Personal Property Shipping Information), Mrs. Jones went through their library and made sure that their professional books and papers were packed separately.

The actual packing was left to the professional packers sent out by the base transportation officer. The freight forwarders and moving companies are not responsible for damage to articles not packed by them.

Things like moose antlers sometimes tax the packers' ingenuity, but they always manage. Moving companies whose agents do a sloppy job of crating and packing, or otherwise don't measure up, don't move many families.

The old Army supply wagon trains have given way to modern motor vans that use only one over-the-road van from the old residence to the new quarters, whether the move is within the U. S. or overseas.

This "through-shipment" system was developed by the commercial carriers themselves and implemented through their agents and facilities in overseas areas. But the basic idea and necessary encouragement came from the military

departments working together to improve shipping methods to cut transit time, costs, loss, and damage. Through-van service is still in an early stage of development but once perfected, the personal property of an individual would be packed in a single lift-on, lift-off type of van at the stateside residence and moved to any place in the world by the same carrier with no delays or in-transit handling. The family's belongings would be unpacked by agents of the same company and placed in new quarters.

The USAF Director of Transportation cautions moving families not to attempt to instruct the carrier or his employees on how to do their job or to tell them what they think is wrong. The packers and carriers are working for the base transportation officer and he is the person who should be told when things go wrong. If property arrives in a damaged condition, notify the transportation officer and the base claims officer immediately. They will inspect the damage, help prepare claim forms and take whatever action is necessary to prevent the same thing happening to others being moved by the same company. Careless and sub-standard moving companies don't get much Air Force business.

What About Damage?

The base claims officer is normally authorized to pay off claims up to $1,000. At the same time, claims should be filed with the carrier and any insurance company concerned.

Normally the carrier is legally liable to pay 30 cents a pound for any damage or loss sustained during your move. The Air Force is authorized to pay up to $6,500.00 for loss and damage providing the loss is not covered by private insurance or cannot be satisfied by the carrier's legal liability or trip-transit insurance. Air Force payments are based on the depreciated value of the property and/or the cost of repairs whichever is less. Trip-transit insurance itself is paid only in the amount that is excess to that paid by the carrier.

Of course damage is sometimes unavoidable, and it is to be expected once in a while. No one is immune but a comparison of the volume of personal property traffic and the relatively small number of complaints received indicates that most moves are truly satisfactory.

Commercial moving insurance is strictly a personal matter but it can often be more expensive than it is worth, especially if it covers the *full value of your property,* which is the only type worth buying. Unless your ordinary household goods are worth more than the $6,500.00 that the Air Force will pay, it is wiser not to buy such insurance. However, on items of extraordinary value such as sterling silver, photographic equipment, oil paintings, etc., insurance should be purchased if you expect to recover full value.

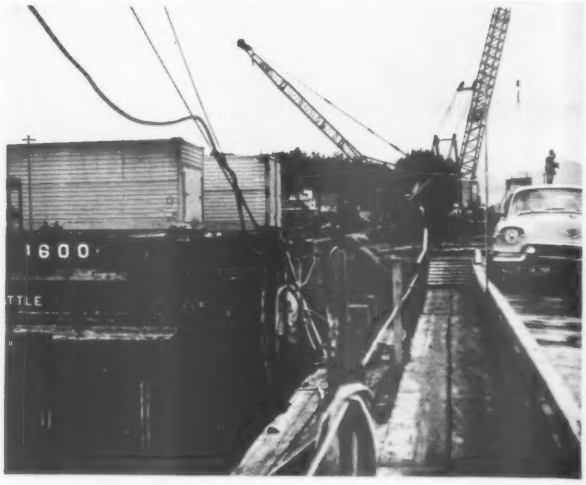
In any event, be sure to discuss your particular problems with the transportation officer and/or the base claims officer before you make your next move. They, and Air Force Regulations 112-7 and 71-4, AFM 67-1, and the Code of Military Justice will furnish all the details for satisfying damage claims. Meanwhile, help yourself to better service on your next move by learning what your rights are and insisting on them.

Mrs. Jones' beautiful parka got the same care as the rest of the Jones' clothes—shipped on hangers in specially built containers that have been developed by the moving companies so that clothes arrive ready to wear after a little pressing.

In the van line's service tender the carrier agrees to abide by specific Department of Defense instructions that include packing items in clean, dry, and sanitary cartons that are then glued, stapled, or taped as the man who packed the Jones' personal effects is doing here.

Captain and Mrs. Jones watched the carrier's agents load their household goods into a "clean and sanitary" sea-van.

The sea-van containing the Jones' possessions was moved by truck to the Alaskan Railroad siding and a crane hoisted it intact onto the rail car that hauled it to the port of Anchorage, 350 miles south of Fairbanks . . .

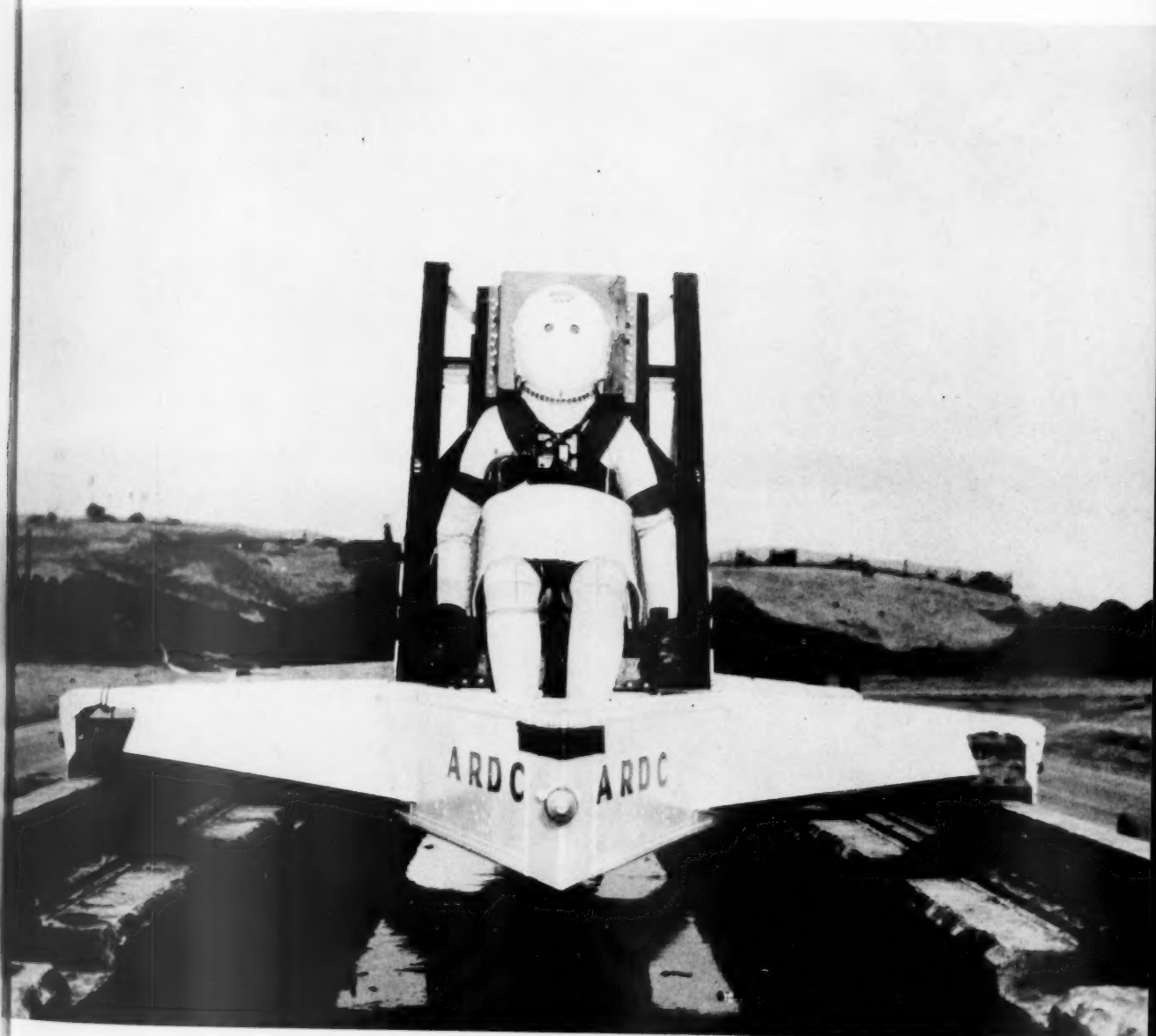


. . . where another crane lifted it aboard a barge. The barge was towed to Seattle, Wash., where another of the carrier's agents arranged for it to be trucked to Baltimore.

After more than 5,000 jolting, jostling miles another of the carrier's agents delivered the Jones' household effects to their new home in Baltimore. On hand for the unloading, the Joneses found that the prized antlers had withstood the trip without a scratch . . .

. . . and so had the dishes. Another of the services provided to Air Force families on the move is that of unpacking and placement within the room of those items shipped at government expense. Mrs. Jones inspected and helped place the dishes where she wanted them as the agent unpacked.

AIRMAN'S WORLD



see next page

GHOSTLY

Ghostly is the only description which properly characteristizes the apparition staring at you on page 31.

The gentleman in question is no such thing despite his Man-from-Mars appearance. Hardly qualified as a *homo sapien,* the five-foot 10-inch, 165-pound dummy is part of USAF's continuing test program designed to provide data on human tolerances to windblast and to aid in devising means of protecting crewmen forced to eject from aircraft at supersonic speeds.

This particular series of tests was conducted at speeds near the 1,200 m.p.h.-level at ARDC's Air Force Missile Development Center, Holloman AFB, N. Mex. The windblast protective suit which the dummy is wearing proved most effective in initial efforts.

GREATER FLEXIBILITY

In a determined effort to provide greater flexibility of candidate selection, United States Air Force Academy officials recently announced a series of adjustments in physical standards for Academy applicants.

At the same time, officials were quick to point out that there has been no lowering of standards of general health or in the academic curriculum. Successful candidates will still receive a baccalaureate degree and navigator's rating upon completion of the four-year course.

In the past, many applicants who have possessed all the major attributes but have fallen slightly shy in some minor manner have had to be disqualified. The easing of physical minimums in these minor areas may now make some previous nominees eligible to reapply providing they are still otherwise qualified. It may also open the doors to other young men who possess strong aeronautical attitudes and are motivated toward a lifetime Air Force career.

Revisions affect six specific categories within the major classifications of height, weight, vision, and allergies.

In the past years, applicants over six feet, four inches, or 38 inches sitting height, were disqualified. The latter restriction has been completely removed and the former raised to six feet, six inches. Maximum weight has also been raised from 226 to 239 pounds, providing the weight is considered proportionate to applicant's height.

Vision standards have undergone the most drastic changes. Vision of 20/50 is acceptable in either or both eyes providing this defect is correctable to 20/20 with moderate refractive error. Minor defects in color perception are also acceptable providing the applicant is able to distinguish distinct red and green. Depth perception and accommodation is no longer a disqualifying shortcoming.

Finally, allergies and seasonal hay-fever, both of which formerly were disqualifying factors, no longer shall be considered grounds for automatic disqualification. Instead, each case will be weighed on its own merit.

THE NAVIGATOR RETURNS

Numerous requests for copies of *The Navigator,* which resumed publication in December, have prompted the magazine's staff to place it on sale for the first time.

Articles of interest and usefulness to people working with navigation in today's rapidly changing Air Force are featured in the magazine which has been out of publication since 1957.

In the past, *The Navigator* was distributed on a basis of one copy to every two navigators in USAF. This distribution will continue and the magazine may also be purchased by individual copies or by yearly subscription.

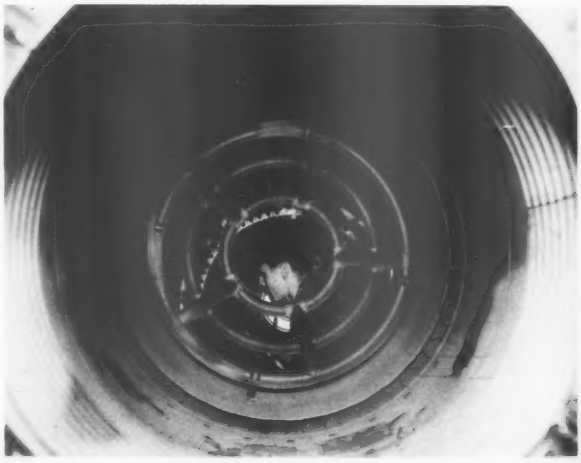
Prices are 40 cents per copy and $1.50 per year, and issues may be obtained by writing to the Superintendent of Documents, Government Printing Office, Washington 25, D. C. Checks or money orders should be made payable to the Treasurer of the United States.

Normal distributon will be accomplished through regular USAF channels. Publication Distribution Officers should submit their requirements for *The Navigator* to Wright-Patterson AFB, Ohio, in accordance with Publications Bulletin No. 38, dated Sept. 19, 1958.

Editorial offices for *The Navigator* are located at ATC headquarters, Randolph AFB, Tex. All navigators are invited to contribute articles to the publication.

You can get into the darndest places. That's the story of a maintenance man's life. Here A/2C William McKenzie, 4081st CAMS, Ernest Harmon AFB, Newfoundland, is working between two parts of a jet engine in the engine buildup section.

Photo by A/1C Vaugn Melhorne



THIRST FOR KNOWLEDGE

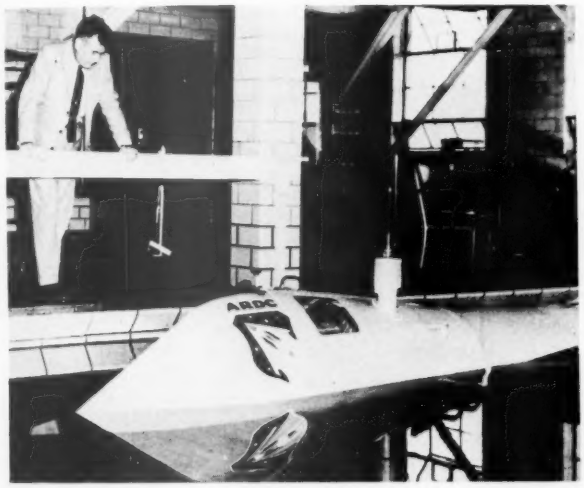
Seven airmen of the 634th Aircraft Control and Warning Squadron, Burns Air Force Station, Oreg., are going out of their way to further their education.

Members of the group, possibly the most knowledge-hungry men anywhere in the Air Force, drive more than 560 miles each week to attend night classes at Central Oregon College in Bend, Oreg., approximately 140 miles west of their home station.

Membership of this novel and exclusive society includes airmen second class Thomas Connell, Keither Grover, John Lundberg, Michael Silver, and James Smith, and airmen third class Robert Henderson and Linford Thelan.

Their studies range from English composition to electrical engineering.

ESCAPE IN COMFORT



ARDC officials have pronounced the latest escape capsule tests, performed at Wright Air Development Center, Wright-Patterson AFB, Ohio, "successful."

For 72 hours, M/Sgt. George Post, sealed in a bullet-shaped capsule and placed afloat in a testing pool at the WADC facility, simulated the plight of an airman down at sea after an emergency escape.

Although under constant observation by engineers and scientists and able to communicate with them by radio, Sergeant Post had only the emergency food and water contained in the capsule's survival kit and otherwise existed exactly as he would have done had he actually been down at sea.

Twelve feet long and about four feet in diameter at its thickest point, the capsule contains about 17 cubic feet of "living" space. The occupant must remain in a semi-reclining position. The concept follows the so-called "short-sleeve-environment" philosophy of USAF in which the pilot need not be hampered by heavy flight gear. Instead, he wears a simple summer-weight flying suit, G-suit, and light-weight helmet. All environmental protection is contained within the capsule.

CORRECTION

The reply in *Letters to the Editor,* October issue of THE AIRMAN, to T/Sgt. Siegel's letter, *Well, Yes and No,* was subject to misinterpretation. In an attempt to clarify any misunderstanding which may arise, the following information is printed as a guideline.

Assignment to Texas Towers is considered isolated duty, and personnel completing tours on the towers are not reported by Hq USAF for Air Force-wide (ZI) assignment as are most other overseas returnees. (Exception: global commands, under certain conditions, are authorized to utilize some of their returnees to satisfy ZI requirements.)

Responsibility for manning the Texas Towers rests solely with ADC and it is their policy, as well as that of USAF, to give airmen from the towers the best possible assignment break. However, selection is limited to bases and units that ADC is responsible for manning.

This limitation is primarily based on the fact that the skills and experience used on the towers are peculiar to ADC and the greatest requirement for these airmen exists in ADC units in the continental U. S.

TIMES SEVEN

MASER, a revolutionary device expected to increase the range of radar up to seven times, is being miniaturized for packaging by Sylvania Electric Products, Inc. and should be ready for testing in military aircraft sometime during 1960.

Laboratory testing has been highly successful, but the device, in its present unwieldy size and form, is not readily applicable to field use. Once the miniaturization process has been completed, widespread use of the system is foreseen in such capacities as ultra-long-range radar, missile tracking, space communication, and radio astronomy.

The name is derived from the operating principle of the development—Microwave Amplification by Stimulated Emission of Radiation. The unit is described as "an amplifier which uses a magnetic crystal, usually a synthetic ruby or a crystal of potassium cobalticyanide, as its heart."

Sylvania officials indicate that completion of a small prototype system is still about 18 months away. At the same time, however, they predict MASER will perform feats not dreamed of with present day equipment.

AERIAL MAPPING

By utilizing an improved version of USAF, high-precision, short-range navigation radar (HIRAN), new equipment has been developed which enables airborne surveying teams to map areas as large as West Virginia with almost unerring accuracy in less than 12 hours.

Presently being tested in Lockheed C-130 *Hercules* aircraft, the new electronic surveying and mapping system was designed primarily to insure accurate aerial maps and charts for use with present and future weapons.

The entire system is a complicated, closed-circuit television compound which even compensates for aircraft movements through the use of gyro-stabilized mounts. Radar and pressure altimeters are used to assure true verification of terrain features, and radiosondes also have

their place in the overall system to allow compensation for humidity, temperature, and pressure changes.

Additional planned refinements call for the present equipment to be supplemented by an airborne digital computer to record the necessary data simultaneously with camera photography. Upon return to the ground, this information will then be fed into a ground computer and final results will be obtainable in minutes rather than hours.

Sixteen MATS aircraft are expected to be fully equipped and operating before the end of the year.

WORRY OR TRUST?

Latest fad in this day of organization is the scheduling of worries. Attached is a suggested outline and possible cure.

Monday: Everyone feels bad on Monday so this is the best day to worry about your failing health and general disability. Relax, feel sorry for yourself all over.

Tuesday: Worry about your job today as you probably didn't get much done yesterday.

Wednesday: Worry about atomic bombs, *Sputniks,* and guided missiles.

Thursday: Worry about the Russians and how far ahead of us they are supposed to be.

Friday: Worry about the high cost of living, why the military pay rates are so low, and how you're going to pay for all the latest luxuries of life you have purchased.

Saturday: This is a miscellaneous worrying day. Start off by worrying about your falling hair, your weight, wrinkles on your brow, and the woes of your family. Above all don't forget to feel heavyhearted over America's coal supply—in a thousand years it may be all gone.

This is a comparatively up-to-date schedule. Sunday you might concentrate a bit on a counteragent—one which has been in force for several thousand years. As Chaplain Nathaniel Brittain, Sewart AFB, Tenn., points out, the Bible teaches simply that when you're trusting, you're not worrying, and when you're worrying, you're not trusting. It's still the world's best seller.

THE NEW SWING

There are few jobs more distasteful to a mechanic than swinging a compass. With a compass rose, and a manually operated bumper-arm, it's a tedious and complicated job for at least two, and usually more, men.

Now Sperry Gyroscope Co. has discovered a revolutionary new method of calibrating the accuracy of magnetic compasses by "rotating the world" around the aircraft instead of rotating the aircraft.

By simply manipulating a switch on a small electrical console and plugging a portable unit into the plane's compass system, a maintenance man may now complete the calibration in less than two hours without moving the aircraft.

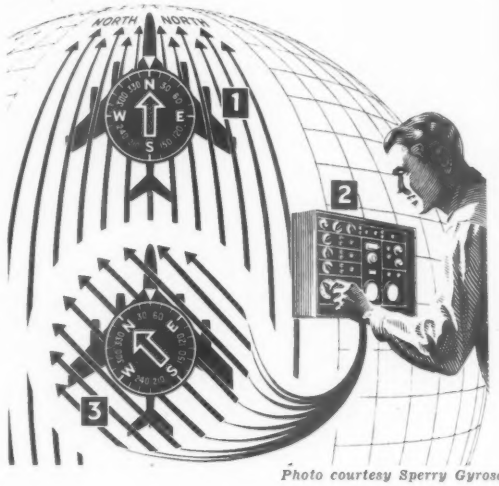


Photo courtesy Sperry Gyroscope

In the accompanying diagram, the procedure is illustrated. The earth's natural magnetic field, flowing past a north-headed aircraft (Fig. 1), causes the plane's compass marker to indicate a proper north heading. In Figure 2, the technician "walls off" the natural magnetic field, and introduces his own. In the illustrated case (Fig. 3), this causes the plane's compass marker to show a heading of 45 degrees despite the fact the aircraft is still heading in the same direction.

By being able, in this manner, to artificially locate magnetic north from any desired position, the technician can quickly check and compensate for compass indicating errors.

Because of prohibitive costs of constructing the old type compass rose, only the larger air bases were equipped with them. Consequently, savings of several millions of dollars annually in ground maintenance and flight costs as well as increased accuracy of navigational instruments are foreseen as some of the benefits which may be derived from this new innovation.

→

Members of the 552d Aircraft Early Warning and Control Wing recently christened one of their Lockheed RC-121 aircraft in honor of the student body of Santa Paula elementary school, Glen City, Calif. Ceremonies, which included adoption of the name *The Spirit of Glen City School,* were attended by the students and their parents. Crew member counterparts were elected from the student body and presented with crew member hats, insignia, and certificates awarding honorary crew status to each. In turn, the school presented a huge scroll, signed by every member of the student body, which will become a permanent part of the aircraft files.

Cheaper, stronger, and easier to use. That's the description of a new "no-kink" hose which has been developed by Quaker Rubber Co. and ARDC engineers. Designed for use in transferring pneumatic pressure from ground-starting units to jet aircraft, the hose is approximately $200 cheaper for each 30-foot length, and will last more than 25 times as long as previously used types. Because of its no-kink qualities, handling during the ground-starting process is considerably simplified for line personnel.

BITS OF BLUE

. . . Revised tests for selected ladders of three career fields were recently completed and will be available for testing periods in April and May. The affected APTs are Aircraft Accessories Maintenance (42); Aircraft and Missile Maintenance (43); and Air Police (77).

. . . Gradual reduction of tactical units of the 366th Tactical Fighter Wing, based at England AFB, La., began last month. The action was a prelude to inactivation of the unit, scheduled to be completed in April.

. . . DOD officials have approved a request for construction of 67 Capehart-type, three-bedroom houses, completely equipped, for use as bachelor officer quarters at Mather AFB, Calif. Use of this type housing is expected to bring a savings of approximately $3,000 per officer over present hotel-like accommodations. Commands have been alerted to the possibility of substituting similar construction where BOQ projects have been approved for their bases.

. . . VA has reported that for the first time since the days of WW II, the number of veterans in civilian life is showing a consistent downward trend. In March 1958, the figure hit an all-time high of 22,735,000. Corresponding figures for the end of 1958 were slightly above 22,700,000.

. . . Armed Forces Day for 1959 will be observed on Saturday, May 16. Military participation in local observances will be confined to Armed Forces Week, May 9-17.

. . . Primary mission of four Air National Guard units was recently changed from air defense to tactical fighter. The four affected organizations are 102d Tactical Fighter Wing (Massachusetts); 107th Tactical Fighter Wing (New York); 113th Tactical Fighter Wing (with headquarters in Washington, D. C., and units in Maryland, Delaware, and West Virginia); and the 146th Tactical Fighter Wing (California).

. . . Education officials at Ramey AFB, Puerto Rico, have lodged a claim of having USAF's first TV-conducted education classes. More than 200 people are now participating in Spanish via television classes which originated in January 1958.

CALLING DR. RESERVE

A surprise alert, designed to test the emergency readiness of a USAF Reserve Hospital Unit, has been declared highly successful by Fourth Air Force officials.

The recent pre-dawn alert in San Francisco, Calif., summoned medical personnel from distances up to nearly 100 miles from the Bay City. Within three hours of the first signal, more than 50 percent of the doctors and dentists were on hand ready to go to work, and before noon, 70 percent attendance had been achieved.

With the exception of three top members of the Fort Miley Reserve Center, none of the Reserve hospital personnel were notified of the pending alert. When the first call was sounded at 6:00 a.m., these three notified key staff officers of the Reserve unit who, in turn, notified other hospital employees through an intricately devised alert plan. By 9:00 a.m., sufficient numbers of Reservists were on hand to place the hospital in operation.

Fourth Air Force spokesmen termed the test an essential part of Reserve training.

Among the small-fry dependents of members of the United States forces in Europe, George is the most. The teens may still be flipping for Elvis and Pat, but A/2C George Creegan has got the attention of the pre-teen set pretty well locked. Airman Creegan conducts what is believed to be the first children's show in the Armed Forces Radio-TV net, Children's Corner, featuring puppets of his own creation and live talent from among the command's younger element, screened through an annual giant talent hunt. The show is a half-hour weekly affair, now in its second season.

YOU ASK IT

Q. I am presently stationed in the Washington, D. C., area. My teen-age daughter attends private school near here and boards away from home. Under the revised Medicare program, is she eligible for civilian medical care?

A. Yes. Your daughter meets all the necessary criteria. She is an unmarried legitimate child under the age of 21, living apart from her sponsor. If she should need civilian medical care, have her first ascertain whether the physician is participating in the program. If so, he will furnish your daughter with a claim form (DA Form 1863). Except for specified charges, she will not be expected to pay the doctor, nurse, or hospital for care covered under the revised provisions.

Q. Many questions still arise over what charges dependents are liable for when undergoing civilian medical care. Would you please elaborate on these?

A. There is one basic charge for all. The dependent will pay either $1.75 per day or the first $25 of the hospital cost, whichever is greater. Then there are certain additional charges for private hospital rooms, private-duty nursing care, maternity care, and readmission to hospitals. The Department of Defense has issued a fact sheet on the revised Medicare program. It might be wise to obtain copies of this sheet, which should be available in all major commands, and see that you and your dependents become familiar with the basic information contained therein.

Q. I have just received orders for my first overseas assignment, which will be in Europe. Does the Medicare bill apply to dependents in overseas areas?

A. As a general rule, dependents will get what care they need from service medical facilities. However, if such facilities are lacking or inadequate in the area to which you are assigned, civilian medical care may be arranged at government expense. Full information is available from the appropriate overseas commander or the nearest service installation. You should check upon arrival at your new station.

Q. How do my dependents certify they are eligible for medical care?

A. When dependents apply for medical assistance at either a service or civilian facility, DD Form 1173 (Uniform Services Identification Privilege Card) is required as proof of eligibility. All eligible dependents, except children under 10 years of age and even they in some instances, will receive these cards. In the case of children without cards, the parent or guardian must furnish proper identification and certify their eligibility. Details may be obtained from any service installation.

Q. Generally speaking, what are the principal changes in the Medicare program?

A. Roughly they fall into two broad categories. Namely, these are restrictions on the use of civilian medical facilities for dependents residing with their sponsor, and reductions in the authorized care and services provided from civilian sources for which the government will pay. However, there are many details which govern, and each individual case must stand on its own merits. Your best bet in any event would be to consult local officials for specific details.

AIR AGE LIBRARY

PROFESSIONAL

This Is Your Civil Air Patrol, C. B. Colby, (Coward McCann, $2.00). A highly illustrated picture narrative of the Civil Air Patrol. The author discusses the purpose of the organization, its cadet program, activities, operations, and the equipment used by this USAF auxiliary.

PAPERBACKS

Periodically THE AIRMAN features listings of paperback editions of air and professional books which are available. These are some of the latest.

Nonfiction

General Billy Mitchell: Champion of Air Defense, Roger Burlingame, Signet.

The Wright Brothers, Fred C. Kelly, Ballantine.

Night Flight, Antoine de St. Exupery, Signet.

Wing Leader, Group Captain J. E. "Johnnie" Johnson, RAF, Ballantine.

The Dam Busters, Paul Briskhall, Ballantine.

Space Satellites, Lloyd Mallan, Fawcett.

Zero, Masatake Okumiya and Jiro Horikoshi with Martin Caidin, Ballantine.

Rescue!, Elliott Arnold, Bantam.

The World in Space, Alexander Marshack, Dell.

Samurai!, Saburo Sakai with Martin Caidin and Fred Saito, Ballantine.

Escape from Colditz, P. R. Reid, Berkley.

5. 4. 3. 2. 1. Blast Off, David Cooke, Maco Magazine.

Kamikaze, Jasau Kuwahara and Gordon T. Allred, Ballantine.

The Bridge at Remagen, Ken Hechler, Ballantine.

Panzer Leader, Heinz Guderian, Ballantine.

Day of Infamy, Walter Lord, Bantam.

They Fought for the Sky, Quentin Reynolds, Bantam.

The Tunnel Escape, Eric Williams, Berkley.

The Big Show, Pierre Clostermann, Ballantine.

The One That Got Away, Kendal Burt and James Leasor, Ballantine.

Satellites, Rockets, and Outer Space, Willy Ley, Signet.

Great Flying Stories, edited by Frank Anderson, Jr., Dell.

Low Level Mission, Leon Wolff, Berkley.

Stuka Pilot, Hans Rudel, Ballantine.

Give Us This Day, Sidney Stewart, Popular Library.

Brainwashing, Edward Hunter, Pyramid.

Fiction

Turn the Tigers Loose, Lt. Col. Walt Lasley, Ballantine.

Bomber Crew, Joseph Landon, Avon.

Maybe I'm Dead, Joe Klass, Dell.

The Hunters, James Salter, Bantam.

The Proving Flight, David Beaty, Perma-Books.

On the Beach, Nevil Shute, New American Library.

Don't Touch Me, Mackinlay Kantor, Popular.

12 points and out

A license to operate a motor vehicle is a privilege—not a right.

by Dave Karten

Bulletin to habitual traffic violators: change your driving habits and attitude if you want to keep on driving.

USAF's driver-improvement traffic point system—already proven successful in 15 states and MATS' Atlantic Division—is scheduled to go into operation at all Air Forces bases this month.

The system puts all drivers—military, dependent, and civilian—who operate a vehicle at an Air Force installation on a "report card" basis. Every violation—whether on or off-base—is scored according to seriousness and an appropriate number of points is entered on the driver's record in the base provost marshal's master file.

Exceeding the base speed limit by a mile puts two demerit points on the record; reckless driving counts five; leaving the scene after damaging another car without making your identity known, six; and so on up to the top penalty of 12 points for drunk driving or being held responsible for a highway fatality. Listed below are point assessments for the various traffic violations.

Point System Scale

Driving, or permitting another to drive, while under the influence of intoxicating liquor 12

Negligent homicide, manslaughter, or assault by an automobile 12

Leaving the scene of an accident involving death or personal injury . 12

Using automobile to commit a felony 12

Operating a vehicle after suspension or revocation of the operator's permit or base driving privilege . . 12

Leaving the scene of an accident involving property damage 6

Reckless driving. (Two convictions in a year result in automatic six-month suspension of base driving privilege.) 5

Exceeding speed limit
by 1-19 m.p.h. 2-3
by 20 m.p.h. or more 4-5

Failure to obey traffic signs or instructions 2-4

Failure to report an accident as required by regulation or law 2

Knowingly operating an unsafe vehicle 2-4

Other moving violations 2-4

After a driver accumulates six points in this manner, his commander counsels him on the responsibilities of vehicle operation. When a driver has acquired 12 or more points the provost marshal notifies his unit commander that action is being taken to suspend or revoke the base operating privilege for six months. The unit commander then notifies the individual of this action.

Once the base driving privilege has been suspended or revoked, appropriate state motor vehicle authorities are given the information so that consideration may be given to suspending or revoking his state driver's license. If a driver shows by repeated violations that he's unfit to drive on an air base the provost marshal's office feels he shouldn't be permitted to drive on the Nation's highways.

Points assessed against traffic violators remain in effect for a 24-month period, after which they are deleted from AF Form 1313, the driver's record. Expiraton of the suspension period will, of itself, serve to cause removal from the record of all points assessed.

Driving while under suspension can result in permanent revocation and/or action under the Uniform Code of Military Justice.

Any person whose base operating privilege is suspended or revoked as a result of maximum point accumulation may appeal, in writing, within a specified time, to the base commander, who has final authority to act on such appeal.

A base commander may authorize a person with revoked or suspended privileges to operate on-base only those government vehicles required by the person's duty assignment. Consideration will also be given to undue hardships imposed upon dependents as a result of violations committed by the sponsor.

Upon transfer to another base, offenders will have their records reviewed by the commander of the new base who will retain the accumulated points and continue the temporary or permanent revocation, or place the driver in queston on probation.

"Assessment of points for a moving vehicle violation," the Provost Marshal emphasizes, "should not be construed as disciplinary action and doesn't relieve commanders or supervisors of the basic responsibility to take other necessary corrective or punitive action. Adoption of the point system by a base isn't intended to interfere in any way with the commander's prerogative to suspend, revoke, or refuse to issue the base operating privilege without regard for new point assessments.

Most Air Force drivers are well-intentioned, law-respecting individuals. Unfortunately, there is a small percentage of chronic offenders—persons with records of previous convictions whose combined disrespect for law and the safety of others eventually results in a serious, and oftimes fatal accident. The point system is designed to reach this offending group of drivers.

In the Name of Congress NO. 5 OF A SERIES

A token force of 16 North American B-25 Mitchells *needled new hope into the hearts of a still-stunned America when they swooped over Japan from the . . .*

NOWHERE OF SHANGRI-LA

by M/Sgt. Hal Bamford

For more than four months, Americans had been fed a steady diet of shockingly bad war news. From the sneak raid against our Hawaiian installations on December 7, 1941, through a series of reverses in the Pacific, United States citizens had starved emotionally on a flimsy menu of galling defeat.

In April, our first major victory of World War II, the battle of the Coral Sea, lay a month in the future. But 80 USAAF fliers, trained to a fine edge and led by a man whose name was already synonymous with the air, hauled their bombers from the pitching deck of the Navy carrier *Hornet* and thrust a telling wound deep into the growing legend of Japanese invincibility.

Lt. Col. James Harold Doolittle and his *Tokyo Raiders* struck the blow on April 18, 1942.

Many have been credited with its original conception, but no one has ever been clearly accorded fatherhood. No matter who conceived the idea, fulfillment was a study in interservice cooperation.

Planning apparently began sometime in January. Colonel Doolittle and Navy Capt. Donald Duncan, now an admiral, selected the B-25 as the logical aircraft. Between them they also worked out recommendations for necessary modifications which were then handed to Lt. Clare Bunch, a brilliant aeronautical engineer, who okayed or rejected the proposals.

When time came to select the crews, existing B-25 outfits were carefully screened. Two of the Air Force's most experienced *Mitchell* units were stationed at Columbia AB, S. C.—the 17th Bomb Group and the 89th Reconnaissance Squadron. Men were asked to volunteer "in the dark," not knowing what the mission entailed. A total of 24 crews was selected and placed on temporary duty to Eglin AB, Fla.

Actual training began in February with crews still unbriefed. Modifications continued. Some guns were pulled to be replaced by special fuel tanks. The Norden bombsight gave way to a "new" invention, designed by Lt. Ross Greening, which weighed about two pounds and cost approximately 20 cents to manufacture.

Main goal of the training was to assure that crews could get their aircraft off the ground with a minimum run. By training's end, every crew had accomplished the goal in less than 500 feet, and one pilot, Lt. Don Smith, had lifted his B-25, fully loaded, from the Eglin strip in 287 feet.

On March 24, the crews were ordered to the west coast and on the 27th, 22 aircraft arrived at Sacramento Air

Depot, Calif. Four days later 16 were loaded aboard the carrier *Hornet* and on April 1, the huge ship steamed out of San Francisco, bound for the Pacific.

The original plan called for only 15 aircraft for the mission. Once the *Hornet* had arrived at a point 500 miles off the California coast, one of the 16 was to take off, to reassure the crews it could be done, and return to the mainland. It was only after the preset line was reached that the decision was made to retain all aircraft.

Twenty-four hours after they had sailed, Colonel Doolittle called his crews together and, for the first time, briefed them on their actual mission. The targets—the cities of Tokyo, Yokohama, Osaka, Kobe, and Nagoya. Targets and termination points were assigned and concentrated schooling began.

The days flashed by, seldom long enough to allow the men to accomplish all they sought to do before takeoff. Among the many tiny tasks which faced the crews, in addition to the mountainous ones, was mastering the Cantonese phrase for "I am an American." As it later developed, most aircraft crashed within Chekiang Province where the Cantonese dialect was not spoken.

April 18 arrived, cold and stormy, with seas running high. The colonel's plane was scheduled off first at about 1600 hours. At 0730 a Japanese patrol boat was sighted and the task force immediately commenced firing to prevent the Japanese from revealing the Americans' presence. Within minutes the enemy ship had been blasted from the seas, but it was impossible to know the damage which had been done.

The crews were alerted. The entire task force must not be placed in jeopardy. Doolittle's original calculations established 650 miles as the absolute maximum mileage from the Japanese coast if the mission was to enjoy any measure of success and provide a margin for crew safety. The *Hornet* was still more than 800 miles away, but there could be no other decision.

Even while the planes prepared for takeoff an additional 50 gallons of fuel were loaded in each in 10 five-gallon cans. The gas was to be poured into temporary internal tanks and when all cans had been emptied they were to be jettisoned simultaneously to avoid marking a trail to the convoy.

At 0818, Doolittle's lead B-25 roared down the plunging deck into the teeth of a 40-knot gale and lifted into the air with 100 feet of deck space still ahead. The takeoff roll had been timed perfectly to coincide with the upward pitch of the ship.

By 0921, the last of the *Tokyo Raiders* had cleared the *Hornet's* deck and headed for the Japanese homeland. Slightly under four hours from the time he had taken off, Doolittle flashed in over the capital city and began unloading his incendiary cargo. Almost immediately, the second plane followed dropping three 500-pound demolition bombs and a single incendiary cluster from 900 feet. Others followed close behind.

Then began the long haul out of Japan, across the East China Sea, and over the Chinese mainland. Now the sweat began. Would the additional 50 gallons of fuel even partially compensate for the added 150 miles of flight? Had the Japanese overrun the intended landing areas? The "easy" part was past; only the unknown remained.

Volume I of *The Army Air Forces in World War II* carries a graphic description of the next few hours. "Although a fortuitous and unexpected tail wind helped to drive the bombers across the East China Sea toward the field they sought at Chuchow, over China the weather was thick and the hour was late; in darkness and rain and cloud, one after another, the bombers either crash-landed or were abandoned by their parachuting crews on the night of April 18."

Colonel Doolittle and his crew were among those who bailed out. For him, the experience was not new. Next to Charles Lindbergh (See, *In the Name of Congress,* Jan. '59), he had been the prewar runnerup in the art of using the 'chute as a means of saving his life. Three times, between 1928 and 1931, Doolittle had called upon the silk for assistance.

All members of Doolittle's crew made it down safely although they became separated in the pitch black night. The immediate instinct was to seek shelter until they could be certain they were within friendly lines. Doolittle's search was rewarded shortly after landing. It wasn't until later that he determined his haven was a local morgue.

By morning his crew began to gather and, within days, men from five crews had joined in Chungking. While still in China, Colonel Doolittle was promoted to brigadier general. Within weeks after the raid had been entered into history books, the area into which most of the crews had leaped or crashed was captured by the Japanese.

Militarily, the results were trifling, but the boost provided for the morale of this Nation was unmeasurable.

In June, War Department General Order 29 was published. Included in the citations was the following which awarded the Medal of Honor to Doolittle.

For conspicuous leadership above and beyond the call of duty, involving personal valor and intrepidity at an extreme hazard to life. With the apparent certainty of being forced to land in enemy territory or to perish at sea, General Doolittle personally led a squadron of Army bombers, manned by volunteer crews, in a highly destructive raid on the Japanese mainland.

THE CHALLENGE OF THULE

by Col. O. F. Lassiter

Editor's Note: *Less than 900 miles from the North Pole, Thule's initial settlement was made in 1910 by Danish explorer Knud Rasmussen and his associate, the late Peter Freuchen. Col. Bernt Balchen, well-known USAF Arctic expert, was the first to call attention to Thule's tremendous strategic importance, and an emergency airstrip was built there under his guidance in 1944. He re-emphasized its strategic location and, in 1950, the Secretary of the Air Force directed that a study be made of the feasibility of constructing an operational base in the northern part of Canada or Greenland.*

Thule was selected as the most suitable site. Operation "Blue Jay" began in March 1951. Construction engineers fought time during the summer and early autumn and by the end of the year the air strip was ready for use. When the Air Force took over the base from the Army Corps of Engineers in 1952, Thule was operational; its runway capable of handling any aircraft that might operate in the Arctic.

Two summers later, the bulk of construction was completed and Thule took its place as a major USAF installation. Originally assigned to the Northeast Air Command, it became a SAC base on April 1, 1957. This is the story of how the challenge of Thule was met.

Col. O. F. Lassiter, 99th Bomb Wing Commander at Westover AFB, Mass., is well qualified to write about Thule. Only recently he was awarded the Legion of Merit for the outstanding job he did while serving as commander of Thule's 4083rd Strategic Wing at the Greenland air base.

"It was," the citation read, "through his ability to plan, coordinate and direct the diverse activities of the most isolated major base within the SAC complex, that a maximum state of combat readiness was assured."

To the average airman Thule used to conjure an ominous picture of bleak desolation somewhere in the shadow of the North Pole.

The name was a synonym for Siberia, the crossroads of oblivion, a pretty cold place 3,000 miles from nowhere, where duty was "strange" and, sooner or later, most people got "a bit shook;" the rest "real shook."

Today, all that has been largely changed and the unique air base that sits astride a *vital* airway from which SAC's polar punch can be launched across the top of the world is a well-run, efficiently operated, Eighth Air Force major facility which stands as a triumph for man over the polar North. Where, not so long ago, Peary rigged Eskimo dog sleds for his push to the Pole with nature as the only enemy, the U. S. has built an installation as modern as any in the world.

On the vast Danish island of Greenland, Thule Air Base is set on the flat floor of an ancient glacier bed several million years old and ringed on three sides by steep rock walls frosted over with snow. Out in the bay, towers famed Mount Dundas—long and straight—topped with smoothly angled slopes. Almost opposite it, on the island perimeter of the mountain, there is a break where a dead-white glimmer marks the edge of the permanent Greenland icecap—1,000-miles long, 700-miles wide, fully 10,000 feet at maximum height, and containing enough frozen water to raise the level of the oceans 20 or 25 feet if it should ever melt.

Contrary to popular opinion, Thule is not at the end of the world. It's the same distance from Washington, D. C., as from Moscow (2,270 from Moscow; 2,280 from Washington). Likewise, the distance from Thule to Seattle, Omaha, Anchorage, or New York is practically the same as to Paris or Madrid.

Climatology

A new arrival at this strategic base is amazed to learn the climate is pretty much like that of an Arctic desert. Humidity is in the same range as the Sahara, about 13 percent in the winter and 34 percent in the summer.

Although the annual snowfall is heavy in the south of Greenland, at Thule there are only about 12 inches of snow annually, and the snow is so dry you can't even make a decent snowball.

Even though Thule is farther north than any point in Alaska, its climate is much warmer. The base's all-time low temperature occurred in March 1953, when the thermometer dipped to minus 43. The all-time high, in July of the same year, was plus 63 degrees. By rule of thumb, temperatures in the winter months vary from minus 20 to minus 25; occasionally drop down to the minus 30s. I can truthfully say that the temperatures were quite mild and didn't bother me to the degree the figures would indicate. Having been reared in Florida, and being an adopted Californian, this is quite a statement. Temperatures in the summer months—June through August—would range in the upper 50s. On occasion, it would go below freezing, and I remember having the biggest snowstorm of the year in July. We got a big chuckle one day in January when we learned it was 32 degrees in Miami, Fla., and 33 in Thule. I well remember, on one of our coldest days (minus 37 degrees) it was minus 55 in upper New York state.

Special Arctic clothing provides protection in minus-40-degree weather. This makes it feasible for maintenance personnel to remain outdoors for extended periods of time.

More Daylight Than Dixie

In most of the articles I'd read prior to my year at Thule I accepted, without analysis, the old concept of "six months of daylight and six months' darkness." Nothing could be further from the truth. As a matter of fact, there is more daylight in the Arctic than in the southern part of the United States. The only completely dark month (when it's dark 24 hours a day) is December. You actually see twilight for the last time around November 25th and, for the first time, the latter part of January. The changes occur rapidly, varying as much as 30-50 minutes each day. For example, the sun first comes above the horizon on the 10th of February and, by the first of March, you have a normal daylight/darkness ratio—12 hours of daylight and 12 hours' darkness. With April, comes the 24-hour daylight which remains until the 10th of September. At this time, darkness creeps in for a few moments around one o'clock in the morning.

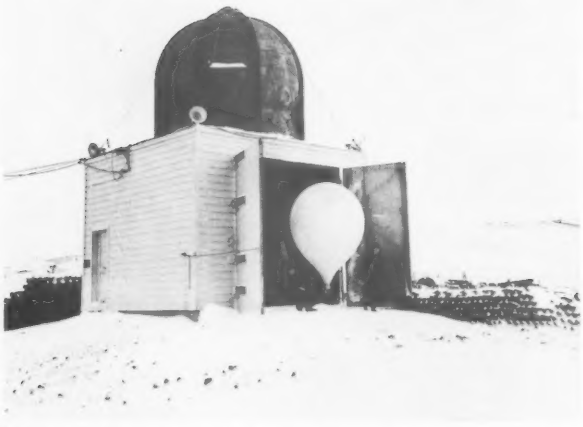
Mount Dundas, outstanding landmark located on North Star Bay, is one of the most photographed sites in the Arctic.

There is the story about an airman who arrived northside just as the winter night set in and asked for an all-night pass. And one about an officer on sick call who tried to date one of the nurses at the hospital on the first day of spring sunlight and promised to bring her home "before dark" (about half-past October).

Sunrise, which is eagerly awaited, prompts one of the year's biggest celebrations (Arctic New Year). It comes during mid-February. Another big celebration occurs the day the shipping season is heralded by the arrival of the icebreaker.

The Mission

SAC's well-known mission is to keep the peace by maintaining a strong deterrent force in-being. Primary mission of the SAC strategic wing and Thule Task Force I



Weathermen of Thule's 5th Weather Group prepare to launch rawinsonde balloon as part of weather-aloft analysis work at base which has some of the world's most unusual weather.

commanded was to train a force capable of performing SAC's emergency war and tactical training operations; provide air base enroute support for units of the Army, Navy, Air Force, Coast Guard, and our allies staging through this area; and coordinate with the Danish government in accordance with established agreements.

General LeMay's wire when SAC assumed command of Thule left little doubt as to the purpose of our mission. "LeMay to Lassiter: Welcome to SAC. By virtue of your location in the northeast area, your base is and will continue to be of paramount importance to strategic operations. As a member of SAC, I am sure you and your command will exert every effort to maintain and increase the ability to support this vital mission. Please convey my personal welcome to all personnel at Thule Air Base."

Included among our responsibilities was the establishment of a base to maintain and operate Ice Island T-3 for International Geophysical Year scientists (approximately 35 personnel). On this floating ice island in the Arctic Ocean, SACmen and planes helped maintain our IGY program of studying climate and oceanography—a study most vital to the future of the fast-opening Far North. On the 10-mile long tabular iceberg that crunches its way through the frozen seas in a meandering course, one SAC officer commanded the contingent of scientists, oceanographers, and communications and supporting personnel. The commander at Thule also has the task of landing supply planes on the evasive, hazardous landing strip which men have carved out of T-3's solid ice. I got a big charge out of reading the monthly reports from the ice island's commander which frequently stated "No AWOLs for the month." The reoccupation of T-3 proved to be a fascinating and successful experience.

Another of our operations from Thule included the first sea ice landing on the Arctic Ocean. This was done to provide auxiliary airdromes. In this area, the ice goes to 60 inches thick. We successfully landed C-124s, KC-97s, and F-89s on North Star Bay with little preparation. We also made very successful alternate runway strips with unlimited area for high crosswind landings and low visibility conditions which might make it impossible to land aircraft on the runway. We actually had a GCA pattern for the snow runway clearly marked, although we were never required to use it.

Modern Nav/Aids

Navigational aids at Thule are ultra modern and the base is as well equipped as any airdrome in the world; better than most. At Thule we commissioned the first ILAS system in the Arctic. The RAPCON and flight-following radar do outstanding jobs, in fact, the best that I have experienced in my Air Force career. This is not only fortunate but actually mandatory for, in the Arctic, the margin for error drops considerably. Accurate navigation is further hindered since magnetic disturbances are very common. Thule is located well north of the magnetic North Pole to which all compasses point—making grid navigation the only feasible system.

Operations at Thule are manifold. It requires hard work to maintain the alert force which has to be on ready status at all times. Thousands of spare parts have to be constantly available, and food and quarters provided for the constant flow of transient crews. Thule is also the flight control center for a vast area. If any plane is overdue or unreported for 30 minutes, Air-Sea Rescue crews immediately take off in helicopters and amphibians to comb the area. There are weather and ice survey planes which continually scout the polar regions. Obviously, the chief problems of Arctic operations are on the ground rather than in the air. Maintaining planes on the ramp in cold temperatures and getting them safely off and back demands cold-weather operating know-how which we acquired since we began operations at Thule. Once airborne, pilots and crews find Arctic flying in many cases, more desirable than flying in more populated areas during the summer months. Bomber "launchings" and refueling operations have become routine under Arctic conditions.

Arctic "Hurricanes"

Among the real hazards of the Arctic are the strong, high winds which occasionally blow down from the ice cap to the coastal areas. As the winds descend from the high, cold interior, they are compressed and warmed, attaining velocities from 25 to as high as 125 knots. The system established at Thule to cope with strong winds was quite effective. We described wind by phases: phase one, velocities from 35 to 55 knots; phase two, 55 to 70 knots; and phase three, anything above 70 knots. Velocity was not the sole factor however. The visibility would also determine at which point we would go from one phase to another.

The system worked well. During phase one we allowed work to continue. In phase two: only those functions absolutely essential for maintenance of the station. In a phase three condition, nothing moved since the combination of a 110-knot wind and blowing snow reduced visibility to the point where you couldn't see the hand in front of your face and the chill factor caused by the low temperature and blowing winds made survival outside

most difficult if not impossible. The only salvation in this case is to "dig in."

Our weather forecasting is excellent and ample warning is usually available before a "big blow." For emergencies, we have small buildings ("Wanagan Huts"), that provide essential heat, food, and shelter so individuals can thaw out and hole up during the blows. During a phase three anything and everything must be tied down. Ever so often, Thule's Polar Survival School team "saves" people who are caught out in a phase three wind where you can be frozen to death in 10 minutes. They made 28 "saves" in 1957 using weasels (small tractor vehicles) to go through the blinding snow. Danger was always clearly defined, posted, and broadcast over the Thule radio and TV stations. Thanks to accurate weather forecasting and proper precautions, there were no casualties of any description from adverse weather during my tour.

Construction Problems

Construction at Thule presents unique problems. The base itself is built on permafrost—permanently frozen gravel and silt left by the glaciers—which is half ice, 25 percent sand, and 25 percent rock. This type of soil is consistent for several thousand feet. Building foundations which are put directly on the surface at Thule tend to buckle and sag on the frozen ground because the heat from the warm buildings melts the surface beneath. Therefore, most buildings are constructed on timbers which place them several feet above the surface. A "pad" of gravel and timbers is laid down below the surface. From this, rise the pilings or stilts and on these are laid concrete slabs weighing 15,000 pounds each. The buildings are assembled on these and bolted down as a precaution against winds. The larger hangar buildings have a series of tremendous ventilating chambers quite deep under the foundation to prevent melting the permafrost surface by allowing the cold outside air to circulate beneath the flooring.

Air policeman guarding KC-97 tanker at Thule Air Base, Greenland, reports to his sergeant-of-the-guard on a frigid Arctic night.

Triple-paned, weatherproof buildings are predominately made of "Clements Panelling"—prefab plywood-aluminum panels that are practically airtight. The panels are aluminum-surfaced inside and out and don't require painting. However, we invited the Architectural Forum to suggest color schemes and painted them bright colors to relieve the drabness.

The buildings are adquately heated from central heating plants by large steam pipes which run into each building through thermostatically controlled inlets. There are three doors to go through upon entering each building. The first is an outside entrance to the "Arctic Room," the second leads into an inner chamber, and the last doorway opens into the hallways. These heat retaining air chambers keep loss of warm air to a minimum. Inside the living quarters, the men walked to their showers in robes, in the offices they worked in shirt sleeves; and in the gymnasium they wore the usual shorts.

Another problem at Thule is water. During most of the year, water carried in pipes freezes solid. To lick this problem, water, waste, and sewage tanks were built for each building. Tanks are filled and emptied by trucks. The water used for showering and washing is drained into the waste tank; this in turn is flushed into the sewage tanks. Water is a critical commodity at Thule. It comes from a distance of six miles through an electrically-heated water pipe to a central point on the station. It is then hauled by 2,000- and 4,000-gallon trucks to some 500 buildings. A monumental task is underway to complete new water and sewage systems. This will be Thule's greatest boon!

City Within Itself

Today, Thule is a modern city within itself, the population sometimes reaching 10,000 during the summer construction months. It contains a rather homogeneous group: the primary units of SAC and Air Defense Command tactical units, some Army units, research and scientific groups, and several hundred civilian construction workers. The Coast Guard operates an important LORAN station close by. The Navy has a detachment in the summer months and the RCAF often runs special projects throughout the seasons. MATS operates Air-Sea Rescue and Airways and Air Communications services.

To counterbalance Thule's discomforts, as far as possible, we relied on a two-part policy: plenty of work and every recreational facility that could possibly be provided. Each group—airmen, noncoms, and officers—has a club that would do any stateside base proud. A different "live" orchestra flown in from the States every month, alternates playing at all the clubs. There are pool tables, shuffleboards, juke boxes, and music by local talent. Service clubs provide snacks, soft drinks, and games.

There is one of the best gymnasiums in the world with facilities for 35 different sports. An outstanding feature is the weight-lifting and physical culture room, designed by gym expert Vic Tanny. There is a modern chapel serving three faiths. The base boasts an up-to-date theater for movies, USO shows, and local revues. A base exchange the size of a super drug store, carries everything from staples and hi-fi do-it-yourself kits to foreign cameras and other luxury items.

The base library is first-rate and University of Maryland on-base extension courses are available to those interested in furthering their education.

Hobbies Unlimited

A hobby shop provides everything from power tools and potters wheels to photographic darkroom facilities. Many an airman who never had a real hobby found the time to cultivate one at Thule, for not only are there physical facilities for hobbies and sports, but encouragement and guidance is provided. No effort has been spared to encourage hobbyists.

Tours are conducted to surrounding areas including the famous Greenland Ice Cap. Glaciers and fjords offer excellent opportunities for photography.

Thule has two radio stations and KOLD TV which telecasts stateside kinescope programs. They feature the same shows as those in your hometowns, as near to stateside schedules as possible.

Although geographically distant from civilization, life at Thule is in no sense isolated. Single side band and micro-wave communications have placed this station right "next door" to the folks at home.

The Lighter Side

Duty at Thule is a serious business but (and the Lord be thanked for it) there is also a lighter side to the North side. The stories about Thule are legion. Some of the anecdotes—from the one about the Old Man's "polar bear" to the gags about ice worms (black specks in the ice cubes), ice flowers, Boudini birds—are as tall as the ice cap itself. But weird chatter, breezy banter, tall tales, and wholly fictitious stories of the fauna of Greenland help morale. They represent some of the weapons that healthy imaginative airmen deliberately employ against their number one enemy—boredom—the most feared affliction of the North. Along with hard work and a good hobby, it is one other method of "shook prevention" and anything that will help a day pass faster is worth its weight in psychiatric couches.

A Healthful Climate

The overall health and morale of the more than 5,000 servicemen at Thule was remarkable and our modern 50-bed hospital was never crowded. This was also evident from the exceptionally small daily sick call which averaged less than 30 visits. Sick call is generally a pretty good index of overall morale, as well as the physical health of the base. We also had one of the best disciplinary records of any base anywhere. The facts here speak for themselves. Another index of morale was the low number of psychiatric problems—less than at any other Eighth Air Force base and one of the lowest Air Force-wide. The policy we instituted of allowing personnel to go home for a two-week leave after serving at Thule six months of the one-year tour was a big morale factor.

During the short summer season, when there is an abundance of sunshine, Thule Air Base fields a baseball team to compete in Air Force tournaments. The base recreation program encourages participation in 35 different sports.

The man who resembles a mole, who after his work is done, goes into his darkened hole of isolation, and disappears . . . this is no longer the man of Thule.

On my first inspection around Thule Air Base I had observed many "Sweat Charts." (Calendars with the days crossed off which had expired from an airman's tour.) After activity picked up, I noted that there were fewer of these, bearing out the flight surgeon's belief that the Air Force has made living under Arctic conditions almost routine for our personnel up there.

Daily Couriers

Several times a day MATS cargo carriers fly into Thule with current newspapers, fresh food, and other supplies (from a 32,000-pound snowscraper, one of the heaviest items ever airlifted, to lipstick for Thule's three females—nurses). In the weeks of open water, fleets of ships of the Military Sea Transport Service (MSTS) churn into North Star Bay with some 90,000 tons of freight. Some of the cargo, including 14,000,000 pounds of food, is deposited in heated storage and, believe it or not, refrigerated warehouses for the summer; other material is simply placed in the open where it is perfectly preserved for future use in the dry sub-freezing temperatures. Frozen meat (each man consumes about two pounds a day) has to be heated to zero degrees for storage during winter.

The exodus of another type of cargo—mail—is also remarkable at Thule where men average between 35 and 40 pounds of mail sent home . . . 50,000 pounds of it per month.

USAF Mastered Arctic Operations

If my year as wing commander taught me anything, it is that the Air Force has mastered Arctic operations. Thule is another triumph for man over the polar North—a step forward in the oldest and most adventurous struggle

Interior of Airmen's club showing modern appointments. All three clubs at Thule (Officers' NCO and Airmen's) are modern, and well furnished.

Necessary supplies come in by ship during the short summer shipping season. Arrival of first supplies prompts a big celebration.

First rate theater at Thule features USO shows, late movies, and local talent revues.

of all—man's indefatigable drive to conquer his own environment. Living comfortably up north is merely a matter of education, but there are certain basic ground rules that you must rigidly adhere to—primarily, dressing properly. Wear many layers of clothes. If you travel away from the station, carry food and heat with you. You cannot "Live off the Land." I always carried a candle, matches, and a bar of Pemmican. If you get caught in any of the high winds, dig in. The best rule is to dig down three feet and back three feet. Light your candle and even at 40 degrees below zero you can maintain plus 32 degrees.

I would like to dispel the mistaken idea that an assignment to Thule is one to be avoided. I found it to be one of the greatest challenges that I have ever encountered, and the fine support I received from all the personnel under my command indicated this feeling was generally prevalent among the people on the station.

Greenland is part of our NATO-ally Denmark and a Danish Governor presides over the island. The Danes are a friendly people, competent, gregarious, and likeable. We enjoyed splendid relationships with them and the two Royal Danish liaison officers during my tour were outstanding gentlemen who provided excellent background information and assisted immensely in our daily operations.

Thule may not be the "garden spot" of the world. And the job of guarding or maintaining SAC's aircraft can be a frigid one despite Mukluks, Long Johns, and Parkas. But the wonderful facilities we have developed there surpass those of any other station I have been on.

The Air Force is well aware of the hardships imposed by elements on the airmen serving at Thule. At the same time it reminds them the Air Force job the world over is tough to begin with and urges them to make the best of the situation. But airmen miss "that little old weekend pass so you can drift into town and see some new faces or get home and see your folks." They also miss the many things we often take for granted back home, like birds and trees and flowers. They have their usual gripes (like military personnel all over the world) about particular duties or this or that superior or the records on the juke box.

While it is true that Thule is one of the most unique USAF bases in the world, it is operated in approximately the same manner as any of SAC's foreign soil bases in 35 other countries—with one exception: at Thule it's easy to concentrate on the mission because there are no distracting influences. And with strong motivation for the mission, being right "next door" to the potental enemy, and natural curiosity about the far regions of the Arctic, most people find that the one-year tour is over before they realize it.

When I pulled up wheels and took my last look at the frozen scimitars of vapor slashing the polar sky, it was with genuine regret. I had a feeling of leaving something important behind.

Many military personnel and civilans have labored long and hard to perfect this vital defense link on North Star Bay, Greenland. And there is hardly an individual whom I talked to upon his return to the U. S. who does not have a feeling of accomplishment at having done his part at Thule to insure the continuation of our American heritage.

Editor's Note: *This is an excerpt from the Wright memorial lecture delivered at the Air Force Academy. We are presenting it for all Air Force personnel.*

AIR FORCE PROFESSIONALS

by General Curtis E. LeMay

Vice Chief of Staff

YOU ARE all well aware of the tremendous urgency of our times and of the gigantic struggle which is going on between the Free World and the Communist countries. This struggle casts its shadows on every phase of our life today. The Communists are determined to accomplish their aims of world domination. We in the Free World are equally determined to contain this cancerous disease and to protect our freedom and our way of life. Military men play and will continue to play a very large part in denying the Communists their aims. To do this job in the best way possible the military services need professionals. And this is what I am going to talk about today—military professionals.

Just what do we mean when we call a man a professional? In all of the activities which come to mind when we speak of professions—law, medicine, engineering, and the others—the professional is universally recognized as a master. Webster defines the word "professional" as "one who engages in anything professionally—as opposed to amateur." Perhaps it is that definition which over the years has caused us to speak of doctors, lawyers, and engineers as professionals. All of us I am sure would shudder at the thought of being administered to by an amateur doctor, being defended in a court of law by an amateur lawyer, or flying an aircraft designed by an amateur engineer.

As the years have passed, it has also become more and more common to refer to the trained military man as a professional—and probably for the same reason. No one in his right mind would place his security—the defense of his country—in the hands of amateurs. In this day and age there is even more reason for this caution because today and on into the future a greater need for military professionals exists than ever before. Let me show you why.

Competence and Dedication

Qualifications as a professional man are based upon possession of a thorough and basic knowledge of the fundamentals and a well-founded experience in the performance of a particular skill. In addition to this competence, professionalism implies dedication. A profession is a life's work, not just a passing job. The professional officer has always maintained a well-established position in our society. He has throughout history been recognized for his many contributions, both in peacetime and in wartime. But, the job which must be accomplished by our officers today is one which would stagger the imagination of the average individual. It requires officers who know the business from the ground up—men who are specialists and general practitioners at the same time. A military professional's basic knowledge of the purpose, capabilities, and requirements of his particular field must now be backed up with an ability to work in exact details on hundreds of complicated subjects. He must not only be technically qualified in his primary field of endeavor, but he must be equally qualified in related fields, plus having a thorough working knowledge in still many other areas. Further, he must possess the skill and competence to combine his technical qualifications and his basic knowledge of the equipment with which he works, to meet to perfection the operational requirements of his job. Beyond this, an officer must be part engineer, part lawyer, part businessman, part preacher, and wholly a leader—both in peacetime and in combat.

The unbelievable progress in science over these past few years, combined with the critical times we live in, and applied to the vast scope of Air Force operations make it very obvious, I think, that the professional officer is the key. His knowledge must be broad, his concepts flexible, and his approach openminded.

Integrity

As you can see, a professional officer is a combination of many different qualities—none of them in the same mixture or quantities in any two people. There is, however, one basic quality which is mandatory for any officer in the Air Force—as it is in all the military services. This is unqualified integrity. Integrity is a priceless attribute, which must be possessed in total or not at all. Once compromised, it is gone forever, and it is not replaceable. It is the true mark of a professional, recognized and respected by all those who come in contact with him. I might add that lack of integrity is also recognized, but with very different results.

Unfortunately, the standards of integrity in this country are far lower than they should be. Daily, integrity is being compromised for comfort, for personal gain—and for many other selfish motives. This is completely unacceptable in the military services. Without integrity, the relationship between individual officers, between officers and airmen, between organizations, and between services will not have substance. A professional officer is a man of principles, and he must stand fast upon these principles. He is a man of honor, and his honor must never be compromised.

Here at the Academy, you men live by a rigid code of honor. To the majority of you this has been just a reemphasis of a way of life that you have followed throughout your early years. Make doubly certain that you take this same code with you out into the service, and that you not only live by it throughout your career, but that you instill in others, who have not had the advantage of your training, the same way of life. The integrity of the officer corps is the backbone of the Air Force.

You have many times heard the phrase, "Time is of the essence." Of course, this statement has always been true—but as technology continues to telescope time and distance, this expression has become much more than a cliche—it has become an element of survival.

In World Wars I and II, time and distance had not yet been compressed into the small capsule they are today. As a result, the small corps of military professionals we had in those days had the time to train amateurs to become professionals and to go on together to victory. The situation today—and even more so in the future—is not the same. Each of us—every officer and every airman—must be a professional. When an emergency occurs there will be no time to train the amateur. Survival will depend upon the professional force we have in-being. The initial phase will be the decisive phase. If our equipment, our skills, and our leadership are first rate, we will survive—and only then.

Economy in Operations

Another reason we need professionals in the military service today more than ever before can be simply stated in one word—money. You have undoubtedly heard that approximately 50 cents of every tax dollar goes to national defense. A substantial portion of the total defense budget —many billions of dollars—is spent by the Air Force. This money represents a large share of our national resource and spending it wisely is a tremendous responsibility.

The Air Force is sometimes referred to as a big business, and it is. Our aircraft, installations, and personnel are located throughout the world, and the scope of our operations is vast and complex. It is incumbent upon us to provide the American people with quality management of this great investment in resources and manpower. Our professional abilities must be such that the most effective Air Force is provided for the least amount of money. This means that the Air Force must provide executive ability which will guarantee efficient management and assure a constant search for more effective —and less expensive— means of doing the job.

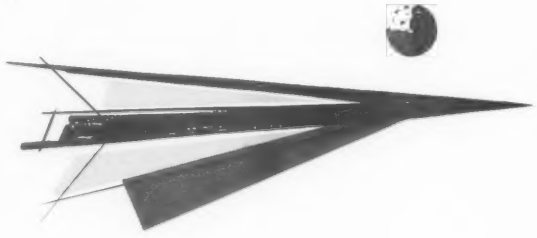
I cannot emphasize too strongly the critical requirement for first rate brains and ability in modern weapons engineering, operations, and management. There is no question at all that we are today, and will be in the future, a big business. But we must look even further than this to catch the true impact of the requirement for successful management and efficient and effective operations. Defense does not pay dollar dividends, but it does pay dividends in security. National security is the Air Force's only product and in this we are not permitted to have a bad year, nor can our stock ever be allowed to drop. There can be no margin for error in our operations. Our country has an enormous investment in its Air Force and it is our job to provide the best product that this investment can buy. A bad product will jeopardize the security of our country and that of the whole Free World.

To obtain superior systems performance, operations, and management—to provide a superior product—we need good decisions. The better trained and more professional Air Force we have, the better will be the decisions that result. This applies equally everywhere, in the air, in the laboratory, in planning and programming conferences—wherever men are called upon to reason and decide. Wrong decisions, regardless of how and where they are made, can mean wasted money, squandered time, and perhaps loss of life. And lives, time, and money are precious commodities to the Air Force and to our country.

Science Sets the Pace

Today, Air Force readiness and capabilities are tied directly to the accomplishments and advancements of sci-

ence. In this period of remarkable breakthroughs in all fields of scientific endeavor, we are hard pressed to keep up with these advances. Some of the things that were new to us five years ago are obsolete today. You can imagine then the impact this must have, not only on our hardware —our bombers, fighters, radars, and so forth—but also on our concepts. In the past, opportunities were lost when military leadership compromised the potentials of new weapons by measuring their worth in terms of old time worn concepts. We cannot run this risk today when time is so critical and the margin for error so slim. We must have professionals who can grasp the impact of each new change and who can keep ahead of new developments and exploit each new advance as it appears. We cannot permit ourselves to cling to the air strategy and tactics of World War II, for example, in the hope that somehow or other they will apply to our modern bombers, our supersonic fighters, and missiles. Only the knowledge, skill, and dedication of a professional applied with imagination and flexibility can keep pace with the speed at which we operate today and will operate in the future.



How many of you have ever stopped to think of the heretofore unheard of things that could become the day-to-day problems which will face you during your career? Which one of you will have to tackle the problem of logistic support of a Moon base? Who will be a satellite commander? Fantastic—absolutely not. You men will have these and other problems just like them dropped right in your lap, and you must be prepared to handle them. There are some who would have us believe that advancing technology and the ability to obtain information and conduct operations by remote electronic means, negate the requirement for man's presence on the scene. I do not agree. Man's ability to reason—his judgment—his power of decision—and the professional approach, will always be necessary for optimum effectiveness.

From the picture I have painted, you might get the idea that the professional is some sort of superman. We all know that this is not so. But one thing we also know is that we don't get this type of officer for nothing.

In a discussion of military service sometime ago, General Vandenberg stated:

"Training for such a profession is not easily achieved or cheaply bought. Men of high purpose and dependable performance can be found in all walks of life, but the services require a steady and dependable supply of men educated in the traditions of national service and uniformly conditioned to the ready acceptance of great responsibilities and to the discipline which such responsibilities impose upon them."

Role of Leadership

This evening, I have referred to the Air Force as a big business and stressed the need for good management. But never forget that we are first of all a combat organization. Last year, General White, on this occasion, spoke to you on the need for leadership in the military service. The theme of good management can be carried just so far—then you come face to face with the requirement for basic leadership—leadership which includes but goes far beyond the connotation of pure executive ability. Ability to provide successful leadership is the true mark of a professional officer. Although we are working daily to insure that we are never faced with a combat situation, do not lose sight of the fact that if war should come, we must win. So as you fight the battles of dollar bills and new machines, remember always that your basic profession is that of a military leader—and that in the final analysis success or failure of our Air Force will depend upon raw, down-to-earth leadership.

Furthermore, this leadership must be forceful. The Air Force must have officers who have the courage of their convictions and who have the drive to carry these convictions to their conclusion. In our complex relationships these days it is all too easy to sit back and let others carry the ball, or to be satisfied with half results. But inertia does not produce progress. We need leaders with drive—who continually get the job done—who show the way—and who keep the pot boiling with new ideas. They must know exactly where they are going and then make sure they get there. We can accept nothing less.

The challenges that face you in your career in the Air Force are infinite. We have entered an era where horizons are, for all intent and purposes, unlimited; where the pace is unbelievably fast and increasing; where the threat which we must meet is daily growing. You have often heard it said there aren't enough hours in a day to do the many things that must be done. This is fast becoming a fact. Time is critical. It is a commodity which we must treasure and use with the same care as we employ our material resources. Therefore, you must start right in with the attitude that there is no time to waste. It is imperative that you spend every available moment preparing yourself for your career.

The Air Force needs mature, well-trained, knowledgeable and well-disciplined officers with a professional approach to the tremendous job that lies ahead. With such men we can do our part to guarantee the type of security which this Nation must achieve and we can continue to earn the confidence of the American people. You are in training to be some of those officers. It is your duty to prepare yourselves to accept this trust.

GEORGE WASHINGTON
(Vaughan-Sinclair Portrait)
National Gallery of Art, Wash., D. C.
Mellon Collection

"Among the many interesting objects which will engage your attention, that of providing for the common defence will merit particular regard. To be prepared for war is one of the most effectual means of preserving peace."

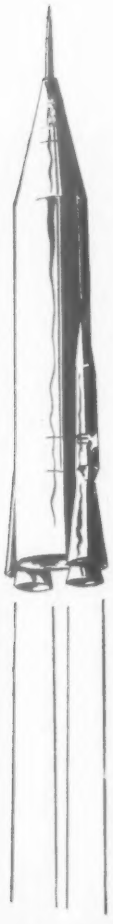
President George Washington
First Annual Address to Congress
January 8, 1790

"Our formidable air striking forces are a powerful deterrent to general war."

President Dwight D. Eisenhower
State-of-the-Union Message
January 9, 1959

5,000,000 YEARS IN THE MAKING

5 seconds of security carelessness could lose it all...



Unless you

NEED TO KNOW

you shouldn't!